

# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 3 OF 5



## HAYS COUNTY, TEXAS AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER
AUSTIN, CITY OF	480624
BEAR CREEK, VILLAGE OF	481679
BUDA, CITY OF	481640
CREEDMOOR, CITY OF	481697
DRIPPING SPRINGS, CITY OF	481667
HAYS COUNTY, UNINCORPORATED AREAS	480321
HAYS, CITY OF	481669
KYLE, CITY OF	481108
MOUNTAIN CITY, CITY OF	481671
NIEDERWALD, CITY OF	481670
SAN MARCOS, CITY OF	485505
UHLAND, TOWNSHIP OF	481668
WIMBERLEY, VILLAGE OF	481694
WOODCREEK, CITY OF	481641

**PRELIMINARY**  
**4/7/2017**

**REVISED:**

FLOOD INSURANCE STUDY NUMBER  
48209CV003B

Version Number 2.3.3.3



# FEMA

# TABLE OF CONTENTS

## Volume 1

	<u>Page</u>
<b>SECTION 1.0 – INTRODUCTION</b>	<b>1</b>
1.1 The National Flood Insurance Program	1
1.2 Purpose of this Flood Insurance Study Report	2
1.3 Jurisdictions Included in the Flood Insurance Study Project	2
1.4 Considerations for using this Flood Insurance Study Report	6
<b>SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS</b>	<b>17</b>
2.1 Floodplain Boundaries	17
2.2 Floodways	43
2.3 Base Flood Elevations	44
2.4 Non-Encroachment Zones	45
2.5 Coastal Flood Hazard Areas	45
2.5.1 Water Elevations and the Effects of Waves	45
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas	45
2.5.3 Coastal High Hazard Areas	45
2.5.4 Limit of Moderate Wave Action	45
<b>SECTION 3.0 – INSURANCE APPLICATIONS</b>	<b>45</b>
3.1 National Flood Insurance Program Insurance Zones	45
3.2 Coastal Barrier Resources System	46
<b>SECTION 4.0 – AREA STUDIED</b>	<b>46</b>
4.1 Basin Description	46
4.2 Principal Flood Problems	47
4.3 Non-Levee Flood Protection Measures	50
4.4 Levees	52
<b>SECTION 5.0 – ENGINEERING METHODS</b>	<b>56</b>
5.1 Hydrologic Analyses	57
5.2 Hydraulic Analyses	94

## Figures

	<u>Page</u>
Figure 1: FIRM Index	8
Figure 2: FIRM Notes to Users	16
Figure 3: Map Legend for FIRM	16
Figure 4: Floodway Schematic	44
Figure 5: Wave Runup Transect Schematic	45
Figure 6: Coastal Transect Schematic	45
Figure 7: Frequency Discharge-Drainage Area Curves	88

## Volume 1, Continued

### Tables

	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions	2
Table 2: Flooding Sources Included in this FIS Report	19
Table 3: Flood Zone Designations by Community	46
Table 4: Coastal Barrier Resources System Information	46
Table 5: Basin Characteristics	47
Table 6: Principal Flood Problems	47
Table 7: Historic Flooding Elevations	48
Table 8: Non-Levee Flood Protection Measures	50
Table 9: Levees	53
Table 10: Summary of Discharges	56
Table 11: Summary of Non-Coastal Stillwater Elevations	93
Table 12: Stream Gage Information used to Determine Discharges	94

## Volume 2

### **SECTION 5.0 – ENGINEERING METHODS**

5.3	Coastal Analyses	135
	5.3.1 Total Stillwater Elevations	135
	5.3.2 Waves	135
	5.3.3 Coastal Erosion	135
	5.3.4 Wave Hazard Analyses	136
5.4	Alluvial Fan Analyses	136

### **SECTION 6.0 – MAPPING METHODS**

6.1	Vertical and Horizontal Control	137
6.2	Base Map	138
6.3	Floodplain and Floodway Delineation	139

### Figures, Continued

	<u>Page</u>
Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas	135
Figure 9: Transect Location Map	136

### Tables, Continued

	<u>Page</u>
Table 13: Summary of Hydrologic and Hydraulic Analyses	96
Table 14: Roughness Coefficients	130
Table 15: Summary of Coastal Analyses	135
Table 16: Tide Gage Analysis Specifics	135
Table 17: Coastal Transect Parameters	136
Table 18: Summary of Alluvial Fan Analyses	136

## Volume 2, Continued

### Tables, Continued

	<u>Page</u>
Table 19: Results of Alluvial Fan Analyses	136
Table 20: Countywide Vertical Datum Conversion	137
Table 21: Stream-Based Vertical Datum Conversion	138
Table 22: Base Map Sources	138
Table 23: Summary of Topographic Elevation Data used in Mapping	139
Table 24: Floodway Data	142

## Volume 3

	<u>Page</u>
<b>SECTION 6.0 – MAPPING METHODS</b>	
6.4 Coastal Flood Hazard Mapping	219
6.5 FIRM Revisions	219
6.5.1 Letters of Map Amendment	219
6.5.2 Letters of Map Revision Based on Fill	220
6.5.3 Letters of Map Revision	220
6.5.4 Physical Map Revisions	221
6.5.5 Contracted Restudies	222
6.5.6 Community Map History	222
<b>SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION</b>	<b>224</b>
7.1 Contracted Studies	224
7.2 Community Meetings	240
<b>SECTION 8.0 – ADDITIONAL INFORMATION</b>	<b>243</b>
<b>SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES</b>	<b>245</b>

### Tables

	<u>Page</u>
Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams	219
Table 26: Summary of Coastal Transect Mapping Considerations	219
Table 27: Incorporated Letters of Map Change	221
Table 28: Community Map History	223
Table 29: Summary of Contracted Studies Included in this FIS Report	224
Table 30: Community Meetings	241
Table 31: Map Repositories	243
Table 32: Additional Information	244
Table 33: Bibliography and References	246

### **Volume 3, Continued**

#### Exhibits

<b>Flood Profiles</b>	<u><b>Panel</b></u>
Barton Creek	01-05 P
Barton Creek Tributary 1	06-07 P
Barton Creek Tributary 2	08-11 P
Barton Creek Tributary 2-1	12-13 P
Barton Creek Tributary 3	14-17 P
Bear Creek	18-23 P
Bear Creek Tributary 1A	24-26 P
Blanco River	27-37 P
Blanco River Overflow Upstream of I-35	38-39 P
Brushy Creek	40-44 P
Bypass Creek	45-47 P
Cambrian Branch	48-50 P
Cambrian Branch Tributary 1	51 P
Cottonwood Branch	52-53 P
Cottonwood Creek	54-55 P

### **Volume 4**

#### Exhibits

<b>Flood Profiles</b>	<u><b>Panel</b></u>
Cypress Creek	56-63 P
Dripping Springs	64-65 P
Dripping Springs Tributary	66 P
Garlic Creek	67-69 P
Garlic Creek Tributary	70 P
Hog Creek	71-73 P
Little Barton Creek	74-77 P
Little Bear Creek	78-81 P
Loneman Creek	82-85 P
Long Branch	86-87 P
Onion Creek	88-96 P
Plum Creek	97-102 P
Pope Creek	103 P
Purgatory Creek	104-114 P
Purgatory Creek Diversion 1	115 P
Richmond Branch	116 P
Roy Branch	117-119 P
San Marcos River	120-123 P
Sink Creek	124-133 P
Smith Creek	134-136 P
Spring Branch	137 P
Stream Bear-1	138-139 P
Stream Bear-2	140-141 P

## **Volume 5**

### **Exhibits**

<b>Flood Profiles</b>	<b><u>Panel</u></b>
Stream BPC-1	142 P
Stream BPC-2	143 P
Stream Brushy-1	144-146 P
Stream Brushy-1A	147 P
Stream CC-1	148-149 P
Stream CC-1 South	150 P
Stream CC-2	151-153 P
Stream CC-2D	154 P
Stream CC-IH35	155-156 P
Stream Cypress-1	157-158 P
Stream LB-1	159-160 P
Stream PC-1	161-163 P
Stream Plum-1	164-167 P
Stream WSC-1	168-169 P
Stream WSC-RR	170 P
Unnamed Tributary to Blanco River	171 P
Unnamed Tributary to Plum Creek	172 P
Walnut Spring	173 P
Willow Springs Creek	174-178 P
Wilson Creek	179-182 P

### **Published Separately**

Flood Insurance Rate Map (FIRM)

**Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams**

**[Not Applicable to this Flood Risk Project]**

#### **6.4 Coastal Flood Hazard Mapping**

This section is not applicable to this Flood Risk Project.

**Table 26: Summary of Coastal Transect Mapping Considerations**

**[Not Applicable to this Flood Risk Project]**

#### **6.5 FIRM Revisions**

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 31, “Map Repositories”).

##### **6.5.1 Letters of Map Amendment**

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA.

To obtain an application for a LOMA, visit [www.fema.gov/floodplain-management/letter-map-amendment-loma](http://www.fema.gov/floodplain-management/letter-map-amendment-loma) and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at [www.fema.gov/online-tutorials](http://www.fema.gov/online-tutorials).

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

### **6.5.2 Letters of Map Revision Based on Fill**

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA's determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting [www.fema.gov/floodplain-management/letter-map-amendment-loma](http://www.fema.gov/floodplain-management/letter-map-amendment-loma) for the "MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill" or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the "Flood Map-Related Fees" section.

A tutorial for LOMR-F is available at [www.fema.gov/online-tutorials](http://www.fema.gov/online-tutorials).

### **6.5.3 Letters of Map Revision**

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit [www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions](http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions) and download the form "MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision". Visit the "Flood Map-Related Fees" section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Hays County FIRM are listed in Table 27. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.



**Table 27: Incorporated Letters of Map Change**

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
06-06-B463P	1/25/2007	Richmond Branch	48209C0290G
07-06-1372X	4/30/2007	Richmond Branch	48209C0290G
07-06-1313P	1/23/2008	Brushy Creek	48209C0280G 48209C0285F <sup>1</sup>
08-06-2092P	8/15/2008	Unnamed Tributary 1 to Cedar Fork Unnamed Tributary 1 to Unnamed Tributary 1 to Cedar Fork	48209C0215G 48209C0220G
08-06-0338P	9/11/2008	Spring Branch	48209C0270G
09-06-3428P	12/17/2009	Spring Branch	48209C0270G 48209C0290G
10-06-1474P	1/27/2011	Unnamed Tributary to Blanco River	48209C0355G
11-06-3956P	5/24/2012	Wilson Creek	48209C0355G
12-06-2514P	5/28/2013	Cottonwood Creek	48209C0478G
14-06-2877P	3/30/2015	Unnamed Tributary to Cypress Creek	48209C0225G

<sup>1</sup>Although a portion of LOMR 07-06-1313P falls within the scope of this map revision, panel 48209C0285F was not revised. Therefore, users must continue to refer to the annotated FIRM attachment for this LOMR for FIRM Panel 48209C0285F

#### 6.5.4 Physical Map Revisions

A Physical Map Revisions (PMR) is an official republication of a community's NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community's chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit [www.fema.gov](http://www.fema.gov) and visit the "Flood Map Revision Processes" section.

### 6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit [www.fema.gov](http://www.fema.gov) to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

### 6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Hays County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBM) and/or Flood Boundary and Floodway Maps (FBFMs) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28, "Community Map History." A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or "pending" (for Preliminary FIS Reports) is shown. If the community is listed in Table 28 but not identified on the map, the community is treated as if it were unmapped.
- *Initial FHBM Effective Date* is the effective date of the first FHBM. This date may be the same date as the Initial NFIP Map Date.
- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.
- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community.
- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as PMRs of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by

the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Hays County FIRMs in countywide format was 02/18/1998.

**Table 28: Community Map History**

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Austin, City of	09/13/1974	09/13/1974	05/31/1977	09/02/1981	<b>TBD</b> 01/06/2016 06/16/1993 05/15/1986 09/27/1985 09/05/1984
Bear Creek, Village of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	06/16/1993 <sup>1</sup>	<b>TBD</b> 09/02/2005 02/18/1998
Buda, City of	06/02/1993	N/A	N/A	06/02/1993	<b>TBD</b> 09/02/2005 02/18/1998
Creedmoor, City of	03/07/1978	N/A	N/A	04/01/1982	01/06/2016 09/26/2008 06/16/1993 01/02/1987 09/27/1985
Dripping Springs, City of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	06/16/1993 <sup>1</sup>	<b>TBD</b> 09/02/2005 02/18/1998
Hays, City of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	06/16/1993 <sup>1</sup>	<b>TBD</b> 09/02/2005 02/18/1998
Hays County, Unincorporated Areas	03/21/1978	03/21/1978	N/A	06/16/1993	<b>TBD</b> 09/02/2005 02/18/1998
Kyle, City of	05/02/1975	12/12/1978	N/A	12/12/1978	<b>TBD</b> 09/02/2005
Mountain City, City of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	06/16/1993 <sup>1</sup>	<b>TBD</b> 09/02/2005 02/18/1998
Niederwald, City of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	02/18/1998	06/19/2012 <sup>2</sup> 09/02/2005

**Table 28: Community Map History, (continued)**

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
San Marcos, City of	08/28/1971	N/A	N/A	08/28/1971	<b>TBD</b> 02/18/1998 09/05/1990 09/01/1983 11/19/1980 11/05/1976 07/01/1974
Uhland, Township of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	06/16/1993 <sup>1</sup>	06/19/2012 <sup>2</sup> 09/02/2005 02/18/1998
Wimberley, Village of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	06/16/1993 <sup>1</sup>	<b>TBD</b> 09/02/2005
Woodcreek, City of	03/21/1978 <sup>1</sup>	03/21/1978 <sup>1</sup>	N/A	02/18/1998	<b>TBD</b> 09/02/2005

<sup>1</sup>Dates were taken from Hays County, Unincorporated Areas

<sup>2</sup>Dates were taken from Caldwell County FIRM

## SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

### 7.1 Contracted Studies

Table 29 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

**Table 29: Summary of Contracted Studies Included in this FIS Report**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Barton Creek	<b>TBD</b>	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Barton Creek	<b>TBD</b>	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Barton Creek Tributary	<b>TBD</b>	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Barton Creek Tributary 1	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Barton Creek Tributary 1	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Barton Creek Tributary 2	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Barton Creek Tributary 2-1	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Barton Creek Tributary 3	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Barton Creek Tributary 39-1	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Barton Creek Tributary 39-2	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Barton Creek Tributary 39-3	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Barton Creek Tributary 40	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Bear Creek	TBD	HALFF	W9126G-09-D-0044	August 2014	Hays County, Unincorporated Areas
Bear Creek	TBD	HALFF	W9126G-09-D-0044	August 2014	Hays County, Unincorporated Areas
Bear Creek Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 1A	TBD	HALFF	W9126G-09-D-0044	August 2014	Bear Creek, Village of; Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Bear Creek Tributary 1B	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 1B-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 4	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 5	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 5-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 6	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 7	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary 7-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Bear Creek Tributary A	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Blanco-San Marcos Overflow	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Blanco Gardens Overflow	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	San Marcos, City of
Blanco River	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of; Wimberley, Village of

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Blanco River Overflow Upstream of I-35	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Brushy Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Niederwald, City of; Hays County, Unincorporated Areas; Uhland, Township of;
Bypass Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Cambrian Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Cambrian Branch Tributary 1	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Cottonwood Branch (Tributary to Roy Branch)	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Cottonwood Branch (Tributary to Onion Creek)	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Cottonwood Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Cottonwood Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; San Marcos, City of
Cypress Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	4/30/2016	Hays County, Unincorporated Areas; Woodcreek, City of; Wimberley, Village of; Woodcreek, City of

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Dripping Springs	TBD	HALFF	W9126G-09-D-0044	August 2014	Hays County, Unincorporated Areas
Dripping Springs Tributary	TBD	HALFF	W9126G-09-D-0044	August 2014	Dripping Springs, City of; Hays County, Unincorporated Areas
Eskew Branch	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Fitzhugh Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Fitzhugh Creek Tributary 1	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Fitzhugh Creek Tributary 2	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Fitzhugh Creek Tributary 3	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Flat Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Freestone Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Garlic Creek	TBD	HALFF	W9126G-09-D-0044	August 2014	Buda, City of; Hays County, Unincorporated Areas
Garlic Creek Tributary	TBD	HALFF	W9126G-09-D-0044	August 2014	Buda, City of; Hays County, Unincorporated Areas
Gatlin Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Grooms Branch	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas



**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Grooms Branch Tributary 1	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Hog Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	4/30/2016	Hays County, Unincorporated Areas; Wimberley, Village of; Woodcreek, City of
Hog Creek Overflow	TBD	Compass PTS JV	HSFE06-15-J-0002	4/30/2016	Woodcreek, City of
Jackson Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Jackson Branch Tributary	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Little Barton Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Dripping Springs, City of; Hays County, Unincorporated Areas
Little Bear Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Little Bear Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Little Bear Creek Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 1-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 1-2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 1A	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas; Hays, City of
Little Bear Creek Tributary 2	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Little Bear Creek Tributary 2-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 2A	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 2B	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 4	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 5	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 6	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Little Bear Creek Tributary 7	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Loneman Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Long Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Long Branch 2 Tributary 1	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Long Branch 2 Tributary 2	TBD	HALFF	W9127S-10-D-0022	August 2014	Dripping Springs, City of; Hays County, Unincorporated Areas
Long Branch 2 Tributary 2-1	TBD	HALFF	W9127S-10-D-0022	August 2014	Dripping Springs, City of; Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Millseat Branch	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Mustang Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Mustang Branch Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas; Kyle, City of
Mustang Branch Tributary 2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Mustang Branch Tributary 2-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas; Mountain City, City of
Mustang Branch Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Mustang Branch Tributary 4	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Mustang Branch Tributary 5	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Mustang Branch Tributary 6	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Mustang Branch Tributary 7	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
North Gatlin Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
NRCS Dam 1 Spillway	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas
NRCS Dam 2 Spillway	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
NRCS Dam 3 Spillway	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	San Marcos, City of
NRCS Dam 4 Spillway	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas
NRCS Dam 5 Spillway	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	San Marcos, City of
Onion Creek	TBD	HALFF	W9126G-09-D-0044	August 2014	Buda, City of; Hays County, Unincorporated Areas
Onion Creek	TBD	RAMPP	HSFE 06-14-J-0001	February 2015	Hays County, Unincorporated Areas
Onion Creek Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 2	TBD	HALFF	W9126G-09-D-0044	August 2014	Buda, City of; Hays County, Unincorporated Areas
Onion Creek Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 4	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 5	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Onion Creek Tributary 5-1	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Onion Creek Tributary 5-1-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 6	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Onion Creek Tributary 7	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 8	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 8-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 8-1-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 9	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 10	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 11	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 12	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 13	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 14	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 14-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 15	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 16	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Onion Creek Tributary 16-1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 17	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 18	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 19	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 20	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 21	TBD	HALFF	W9127S-10-D-0022	August 2014	Dripping Springs, City of; Hays County, Unincorporated Areas
Onion Creek Tributary 22	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 23	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Onion Creek Tributary 24	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Pier Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Plum Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; Kyle, City of; Uhland, Township of
Pope Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas
Purgatory Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Purgatory Creek Diversion 1	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	San Marcos, City of
Purgatory Creek UNT	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Purgatory Middle Diversion	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	San Marcos, City of
Richmond Branch	TBD	N/A	N/A	4/30/2007	Hays County, Unincorporated Areas; Kyle, City of
Rocky Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Roy Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
San Marcos River	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas;
San Marcos River	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
San Marcos Tributary	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas
Sessom Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	San Marcos, City of
Sink Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Smith Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; Wimberley, Village of
South Gatlin Creek	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
South Gatlin Creek Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
South Gatlin Creek Tributary 2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
South Gatlin Creek Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
South Onion Creek	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
South Onion Creek Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
South Onion Creek Tributary 2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
South Onion Creek Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Spring Branch	2/18/1998	USACE	EMW-94-E-4317	June 1995	Kyle, City of; Hays County, Unincorporated Areas
Spring Hollow	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
Spring Hollow Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Spring Hollow Tributary 2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Spring Hollow Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Stream Bear 1	2/18/1998	USACE	EMW-94-E-4317	June 1995	Bear Creek, Village of; Hays County, Unincorporated Areas



**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Stream Bear 2	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Stream BPC-1	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Stream BPC-2	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas
Stream Brushy-1	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; Niederwald, City of
Stream Brushy-1A	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Stream CC-1	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	San Marcos, City of
Stream CC-1 South	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	San Marcos, City of
Stream CC-2	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	Hays County, Unincorporated Areas; San Marcos, City of
Stream CC-2D	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; San Marcos, City of
Stream CC-IH35	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; San Marcos, City of
Stream Cypress-1	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Stream LB-1	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Stream PC-1	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2106	Hays County, Unincorporated Areas; San Marcos, City of
Stream PC-3	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	San Marcos, City of
Stream Plum-1	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas; Kyle, City of
Stream WSC-1	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas
Stream WSC-1 Split	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas
Stream WSC-RR	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	San Marcos, City of
Tributary CC-1A	TBD	Compass PTS JV	HSFE06-15-J-0002	10/31/2016	Hays County, Unincorporated Areas; Woodcreek, City of
Tributary CC-2A	TBD	Compass PTS JV	HSFE06-15-J-0002	10/31/2016	Wimberley, Village of
Unnamed Tributary To Blanco River	N/A	N/A	N/A	1/27/2011	Wimberley, Village of
Unnamed Tributary 1 to Cedar Fork	N/A	N/A	N/A	8/15/2008	Hays County, Unincorporated Areas
Unnamed Tributary 1 to Unnamed Tributary to Cedar Fork	N/A	N/A	N/A	8/15/2008	Hays County, Unincorporated Areas
Unnamed Tributary 2 to Unnamed Tributary to Cedar Fork	N/A	N/A	N/A	8/15/2008	Hays County, Unincorporated Areas

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Unnamed Tributary of Cypress Creek	N/A	Pro-Tech Engineering Group	N/A	3/30/2015	Hays County, Unincorporated Areas
Unnamed Tributary to Plum Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Walnut Spring	TBD	HALFF	W9126G-09-D-0044	August 2014	Dripping Springs, City of
Walnut Spring	TBD	HALFF	W9126G-09-D-0044	August 2014	Dripping Springs, City of; Hays County, Unincorporated Areas
West Mustang Branch	TBD	HALFF	W9127S-10-D-0022	August 2014	Hays County, Unincorporated Areas
West Mustang Branch Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
West Mustang Branch Tributary 2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
West Mustang Branch Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
White Branch	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
White Branch Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Willow Springs Creek	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	Hays County, Unincorporated Areas; San Marcos River, City of
Willow Springs Creek Diversion	TBD	Compass PTS JV	HSFE06-15-J-0002	8/31/2016	San Marcos River, City of
Willow Springs Creek Lower Tributary	TBD	Compass PTS JV	HSFE06-15-J-0002	5/31/2016	San Marcos River, City of

**Table 29: Summary of Contracted Studies Included in this FIS Report, (continued)**

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Wilson Creek	2/18/1998	USACE	EMW-94-E-4317	June 1995	Hays County, Unincorporated Areas
Yorks Creek	TBD	HALFF	W9127S-10-D-0022	February 2015	Hays County, Unincorporated Areas
Yorks Creek Tributary 1	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Yorks Creek Tributary 2	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas
Yorks Creek Tributary 3	TBD	HALFF	1008-07-5510	February 2013	Hays County, Unincorporated Areas

## 7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 30. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

**Table 30: Community Meetings**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Austin, City of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
Bear Creek, Village of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
Buda, City of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
Creedmoor, City of	09/02/2005	*	*	*
Dripping Springs, City of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
Hays County, Unincorporated Areas	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
		09/21/2016	Hydrology Meeting	Hays County, Caldwell County, Cities of Luling, San Marcos, and Wimberley, Compass JV, FEMA, GBRA, TWDB, USGS, and USACE
		09/22/2016	Flood Risk Review	Hays County, Caldwell County, City of San Marcos, TWDB, TDPS, GBRA, FEMA, and Compass JV
		10/19/2016	Flood Risk Review	Hays County, Caldwell, Guadalupe County, Cities of Martindale, Woodcreek, San Marcos, Luling, Wimberley, FEMA, TWDB, Compass JV
Hays, City of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
Kyle, City of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA
Mountain City, City of	TBD	04/05/2016	Flood Risk Review	Hays County, Cities of Austin and Buda, RAMPP, Compass JV, FEMA, TWDB, TDEM, and FEMA

**Table 30: Community Meetings, (continued)**

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Niederwald, City of	09/02/2005	*	*	*
San Marcos, City of	TBD	09/21/2016	Hydrology Meeting	Hays County, Caldwell County, Cities of Luling, San Marcos, and Wimberley, Compass JV, FEMA, GBRA, TWDB, USGS, and USACE
		09/22/2016	Flood Risk Review	Hays County, Caldwell County, City of San Marcos, TWDB, TDPS, GBRA, FEMA, and Compass JV
		10/19/2016	Flood Risk Review	Hays County, Caldwell, Guadalupe County, Cities of Martindale, Woodcreek, San Marcos, Luling, Wimberley, FEMA, TWDB, Compass JV
Uhland, Township of	09/02/2005	*	*	*
Wimberley, Village of	TBD	09/21/2016	Hydrology Meeting	Hays County, Caldwell County, Cities of Luling, San Marcos, and Wimberley, Compass JV, FEMA, GBRA, TWDB, USGS, and USACE
		09/22/2016	Flood Risk Review	Hays County, Caldwell County, City of San Marcos, TWDB, TDPS, GBRA, FEMA, and Compass JV
		10/19/2016	Flood Risk Review	Hays County, Caldwell, Guadalupe County, Cities of Martindale, Woodcreek, San Marcos, Luling, Wimberley, FEMA, TWDB, Compass JV
Woodcreek, City of	TBD	09/21/2016	Hydrology Meeting	Hays County, Caldwell County, Cities of Luling, San Marcos, and Wimberley, Compass JV, FEMA, GBRA, TWDB, USGS, and USACE
		09/22/2016	Flood Risk Review	Hays County, Caldwell County, City of San Marcos, TWDB, TDPS, GBRA, FEMA, and Compass JV
		10/19/2016	Flood Risk Review	Hays County, Caldwell, Guadalupe County, Cities of Martindale, Woodcreek, San Marcos, Luling, Wimberley, FEMA, TWDB, Compass JV

\*No Community Meetings were held for the 09/02/2005 FIS

## SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see [www.fema.gov](http://www.fema.gov).

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Hays County (FEMA 2005).

Table 31 is a list of the locations where FIRMs for Hays County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

**Table 31: Map Repositories**

Community	Address	City	State	Zip Code
Austin, City of	Public Works 505 Barton Springs Road 8 <sup>th</sup> Floor, Suite 800	Austin	TX	78704
Bear Creek, Village of	City Hall 13012 South Madrone Trail	Austin	TX	78737
Buda, City of	Engineering Department 100 Houston Street	Buda	TX	78610
Creedmoor, City of	City Hall 5008 Hartung Lane	Creedmoor	TX	78610
Dripping Springs, City of	Public Works Department 511 Mercer Street	Dripping Springs	TX	78620
Hays, City of	Mayor 520 Country Lane	Buda	TX	78610
Hays County, Unincorporated Areas	Hays County Development Services Department 2171 Yarrington Road	San Marcos	TX	78666
Kyle, City of	Engineering Department 100 West Center Street	Kyle	TX	78640
Mountain City, City of	Mayor 101 Mountain City Drive	Mountain City	TX	78610
Niederwald, City of	City Hall 8807 Neiderwald Strasse	Niederwald	TX	78640

**Table 31: Map Repositories, (continued)**

Community	Address	City	State	Zip Code
San Marcos, City of	Engineering Department/ San Marcos City Hall 630 East Hopkins Street	San Marcos	TX	78666
Uhland, Township of	City Hall 15 North Old Spanish Trail	Uhland	TX	78640
Wimberley, Village of	Public Works Department 221 Still Water	Wimberley	TX	78676
Woodcreek, City of	City Hall 41 Champions Circle	Wimberley	TX	78676

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM Databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 32.

Table 32 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

**Table 32: Additional Information**

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	<a href="http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library">www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library</a>
NFIP website	<a href="http://www.fema.gov/national-flood-insurance-program">www.fema.gov/national-flood-insurance-program</a>
NFHL Dataset	<a href="http://msc.fema.gov">msc.fema.gov</a>
FEMA Region VI	Jennifer Knecht FEMA Region Representative FEMA Region VI 800 North Loop 288 Denton, TX 76209 (940) 898-5553 <a href="mailto:Jennifer.Knecht@fema.dhs.gov">Jennifer.Knecht@fema.dhs.gov</a>



**Table 32: Additional Information, (continued)**

Other Federal Agencies	
USGS website	www.usgs.gov
Hydraulic Engineering Center website	www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	Michael Segner, CFM Texas Water Development Board 1700 North Congress Avenue P.O. Box 13231 Austin, TX 78711-3231 (512) 463-3509 x111 michael.segner@twdb.texas.gov
State GIS Coordinator	Mike Ouimet State GIS Coordinator 300 West 15th Street P.O. Box 13564 Austin, TX 78711-3564 (512) 305-9076 Fax: (512) 475-4759 mike.ouimet@dir.state.tx.us

## SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 33 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

**Table 33: Bibliography and References**

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
CENSUS 1980	U.S. Department of Commerce, Bureau of the Census	<i>1980 Census of Population, Number of Inhabitants, Texas</i>		Washington, D.C.	1981	<a href="http://www.census.gov">www.census.gov</a>
CENSUS 2000	U.S. Department of Commerce, Bureau of the Census	<i>Census 2000 Redistricting Data Summary File</i>				<a href="http://factfinder.census.gov">factfinder.census.gov</a>
DALMN 1987	Dallas Morning News	<i>The 1986-1987 Texas Almanac (Sesquicentennial Edition)</i>				
FEMA 1978	Federal Emergency Management Agency	<i>Flood Hazard Boundary Maps, Hays County, Texas (Unincorporated Areas)</i>		Washington, D.C.	March 1978	FEMA Flood Map Service Center <a href="http://msc.fema.gov">msc.fema.gov</a>
FEMA 1989	Federal Emergency Management Agency	<i>Flood Insurance Study, Hays County, State, and Unincorporated Areas</i>				
FEMA 1990	Federal Emergency Management Agency	<i>Flood Insurance Study, City of San Marcos, Hays and Caldwell Counties, Texas</i>		Washington, D.C.	September 1990	FEMA Flood Map Service Center <a href="http://msc.fema.gov">msc.fema.gov</a>
FEMA 1993A	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Buda, Hays County, Texas</i>		Washington, D.C.	June 1993	FEMA Flood Map Service Center <a href="http://msc.fema.gov">msc.fema.gov</a>

**Table 33: Bibliography and References, (continued)**

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
FEMA 1993B	Federal Emergency Management Agency	<i>Flood Insurance Study, City of Woodcreek, Hays County, Texas</i>		Washington, D.C.	June 1993	FEMA Flood Map Service Center <a href="http://msc.fema.gov">msc.fema.gov</a>
FEMA 1993C	Federal Emergency Management Agency	<i>Flood Insurance Study, Hays County, Texas (Unincorporated Areas)</i>		Washington, D.C.	June 1993	FEMA Flood Map Service Center <a href="http://msc.fema.gov">msc.fema.gov</a>
NOAA 1977	National Oceanic and Atmospheric Administration, National Weather Service	<i>Five to 60-Minute Precipitation Frequency for the Eastern and Central United States, Technical Memorandum NWS Hydro-35</i>		Washington, D.C.	June 1977	<a href="http://nws.noaa.gov/">nws.noaa.gov/</a>
NOAA 1994	National Oceanic and Atmospheric Administration	<i>Precipitation Return Frequencies for Hays County, Texas</i>		Washington, D.C.	1994	<a href="http://noaa.gov">noaa.gov</a>
SM 2015	City of San Marcos, Texas	<i>San Marcos Drainage Master Plan Hydrology and Hydraulics Final Report</i>		San Marcos, TX	May 2015	
TXHA 1952	Texas State Historical Association	<i>The Handbook of Texas</i>				
USACE 1957	U.S. Department of the Army, Office of the Chief of Engineers	<i>Standard Project Flood Determinations</i>		Davis, CA	March 26, 1957	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1970	U.S. Department of the Army, Corp of Engineers	<i>Synthetic Unit Hydrograph Relationships, Trinity River Tributaries, Fort Worth-Dallas Urban Area</i>	Thomas Nelson	Davis, CA	September 1970	<a href="http://www.usace.army.mil">www.usace.army.mil</a>

**Table 33: Bibliography and References, (continued)**

Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 1970	U.S. Department of the Army, Corp of Engineers, Hydrologic Engineering Center	<i>HEC-1 Flood Hydrograph Package</i>		Davis, CA	October 1970	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1977	U.S. Department of the Army, Corp of Engineers	<i>Effects of urbanization on Various Frequency Peak Discharges</i>	Paul Rodman	Davis, CA	October 1977	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1982	U.S. Department of the Army, Corp of Engineers	<i>Computer Program NUDALLAS</i>		Fort Worth, TX		<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1984	U.S. Department of the Army, Corp of Engineers	<i>Multiple-Regression Equations to Estimate Peak Streamflow Frequency for Streams in Hays County, Texas</i>		Washington, D.C.	1994	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1984	U.S. Department of the Army, Corp of Engineers, Hydrologic Engineering Center	<i>HEC-2 Water-Surface Profiles, Generalized Computer Program</i>		Davis, CA	April 1984	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1986	U.S. Department of the Army, Corp of Engineers	<i>NUDALLAS Documentation and Supporting Appendices</i>		Davis, CA	September 1986	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 1997	U.S. Department of the Army, Corp of Engineers	<i>Uncertainty Estimates for Nonanalytic Frequency Curves, ETL 1110-2-537</i>		Davis, CA	October 1997	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 2010	U.S. Department of the Army, Corp of Engineers	<i>HEC-HMS Flood Hydrograph Package v3.5</i>		Davis, CA	August 2010	<a href="http://www.usace.army.mil">www.usace.army.mil</a>

**Table 33: Bibliography and References, (continued)**

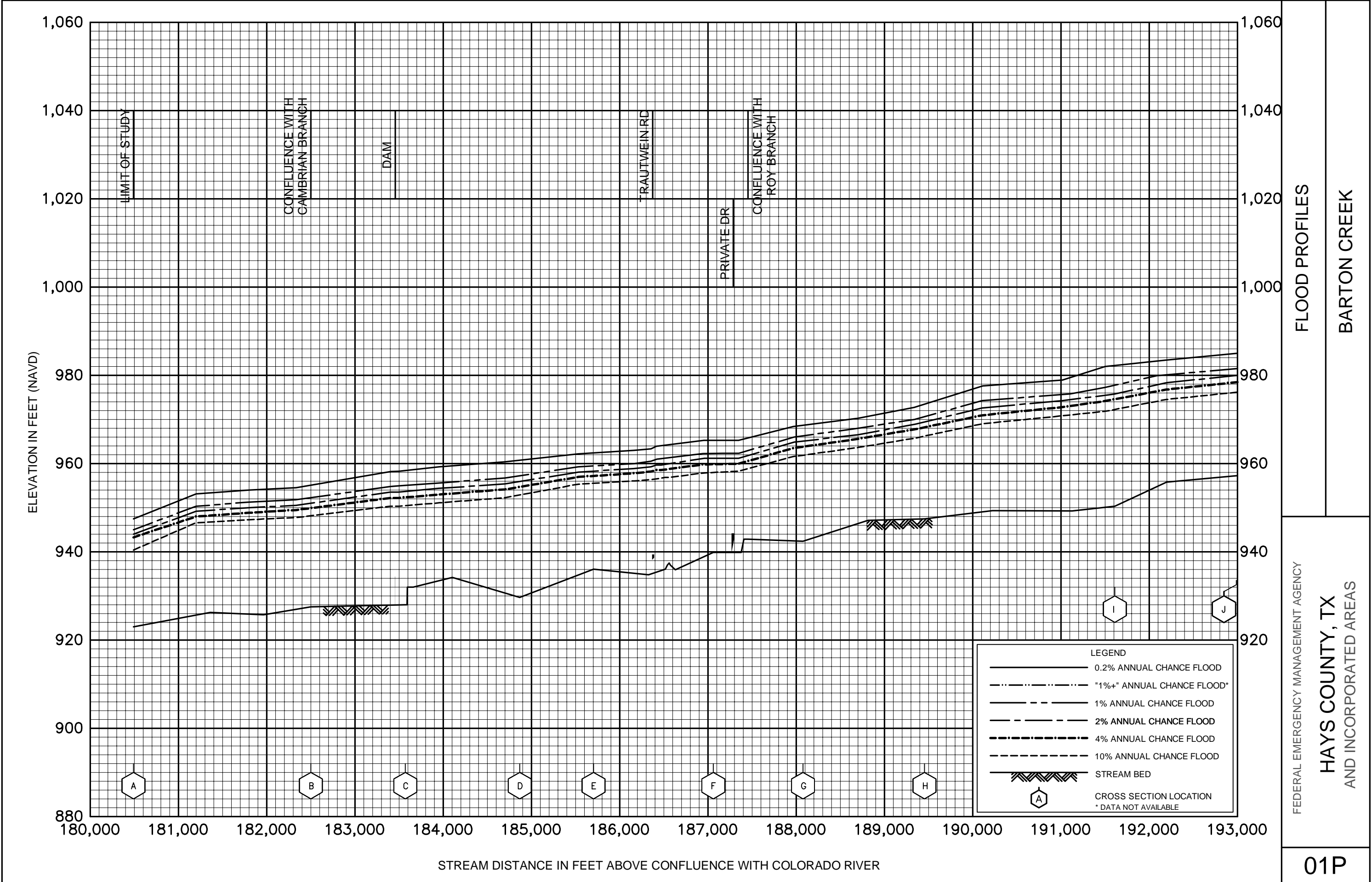
Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USACE 2010	U.S. Department of the Army, Corp of Engineers	<i>HEC-RAS River Analysis System v4.1</i>		Davis, CA	January 2010	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 2015	U.S. Department of the Army, Corp of Engineers	<i>HEC-HMS Flood Hydrograph Package v4.1</i>		Davis, CA	July 2015	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 2015	U.S. Department of the Army, Corp of Engineers	<i>Lower Guadalupe Basin Guadalupe-Blanco River Authority Interim Feasibility Study – Phase 2, Technical Report Notebook (TRN) Engineering Analysis – Hydrology and Hydraulics</i>		Davis, CA	May 2015	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 2016	U.S. Department of the Army, Corp of Engineers, Hydrologic Engineering Center	<i>HEC-RAS River Analysis System v5.0.3</i>		Davis, CA	February 2016	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USACE 2016	U.S. Department of the Army, Corp of Engineers	<i>Interagency Flood Risk Management (InFRM) Hydrology Report for the San Marcos River Basin</i>		Davis, CA	Septemeber 2016	<a href="http://www.usace.army.mil">www.usace.army.mil</a>
USDOC 1961	U.S. Department of Commerce, Weather Bureau	<i>Rainfall Frequency Atlas of the United States</i> , Technical Paper No. 40		Washington, D.C.	1961, revised 1963	<a href="http://nws.noaa.gov/">nws.noaa.gov/</a>
USGS 1981	U.S. Department of Interior, Geological Survey	<i>Guidelines for Determining Flood Flow Frequency, Bulletin 17B of the Hydrology Subcommittee</i>		Washington, D.C.	September 1981	
USGS 1993	U.S. Department of Interior, Geological Survey	<i>Flood Characteristics of Urban Watersheds in the United States</i>		Washington, D.C.	1983	

**Table 33: Bibliography and References, (continued)**

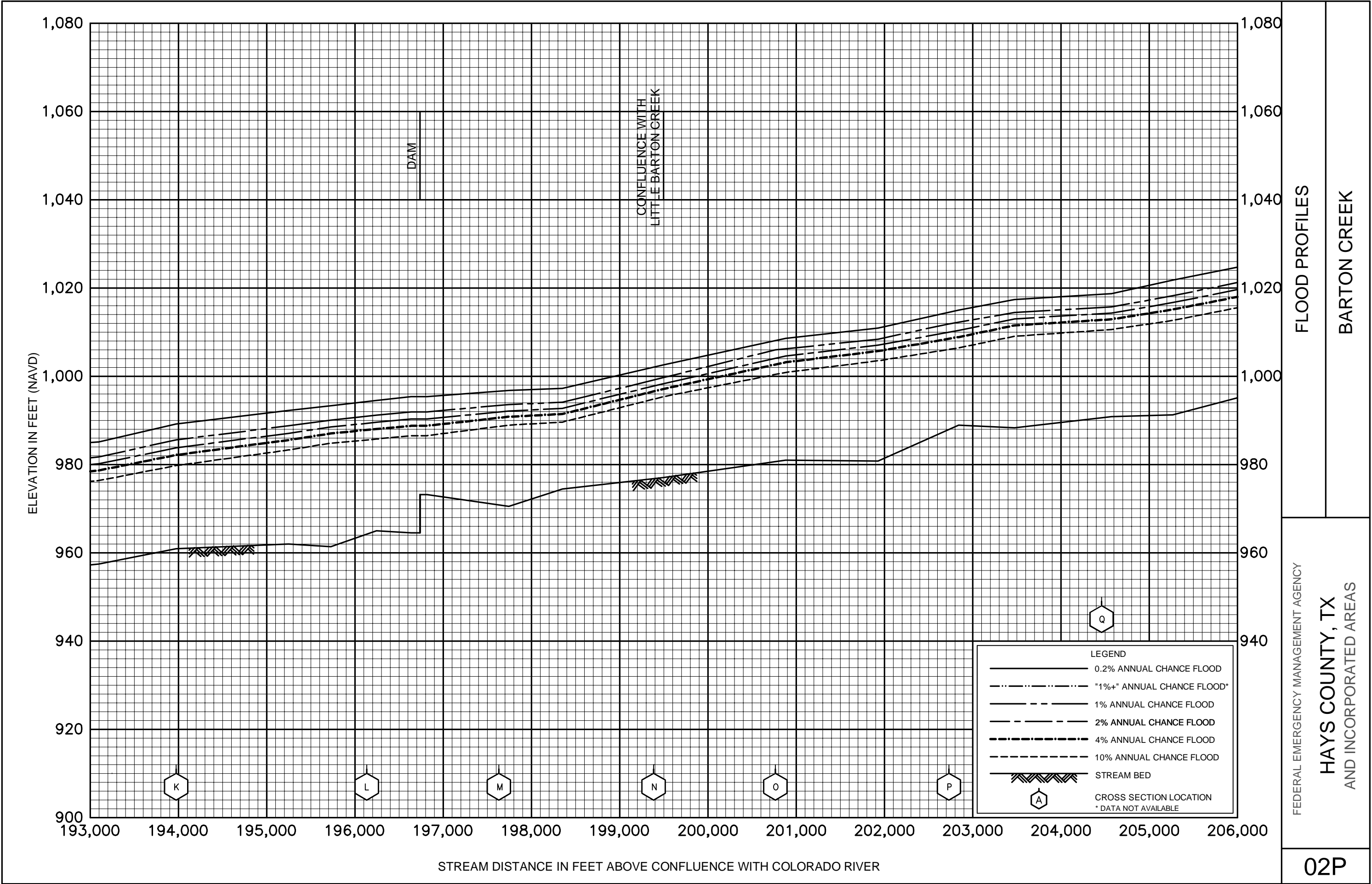
Citation in this FIS	Publisher/ Issuer	Publication Title, "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS 1993	U.S. Department of Interior, Geological Survey	<i>Nationwide Summary of U.S. Geological Survey Regional Regression Equations for Estimating Magnitude and Frequency of Floods for Ungaged Sites, 1993</i>	M.E. Jennings, W.O. Thomas, Jr, H.C. Riggs	Reston, VA	1994	
USGS 2004	U.S. Department of Interior, Geological Survey	<i>Atlas of Depth-Duration Frequency of Precipitation Annual Maxima for Texas SIR 2004-5041</i>	William Asquith, Meghan Roussel	Washington, D.C.	2004	
USGS	U.S. Department of Interior, Geological Survey	<i>7.5-Minute Series Topographic Maps</i> , Scale 1:24,000, Contour Intervals 10 and 20 feet: Buda, Texas (1967, photorevised 1973); Creedmoor, Texas (1967); Devils Backbone, Texas (1967); Driftwood, Texas (1967); Dripping Springs, Texas (1967); Hammets Crossing, Texas (1967); Henly, Texas (1967); Hunter, Texas (1967); Mountain City, Texas (1967); Paxton, Texas (1967); Rough Hollow, Texas (1967); San Marcos North, Texas (1967); San Marcos South, Texas (1967); Shingle Hills, Texas (1967); Signal Hills, Texas (1967); Uhland, Texas (1967); Wimberly, Texas (1967); Woodcreek, Texas (1964)		Washington, D.C.	1964 & 1967	<a href="http://topomaps.usgs.gov">topomaps.usgs.gov</a>

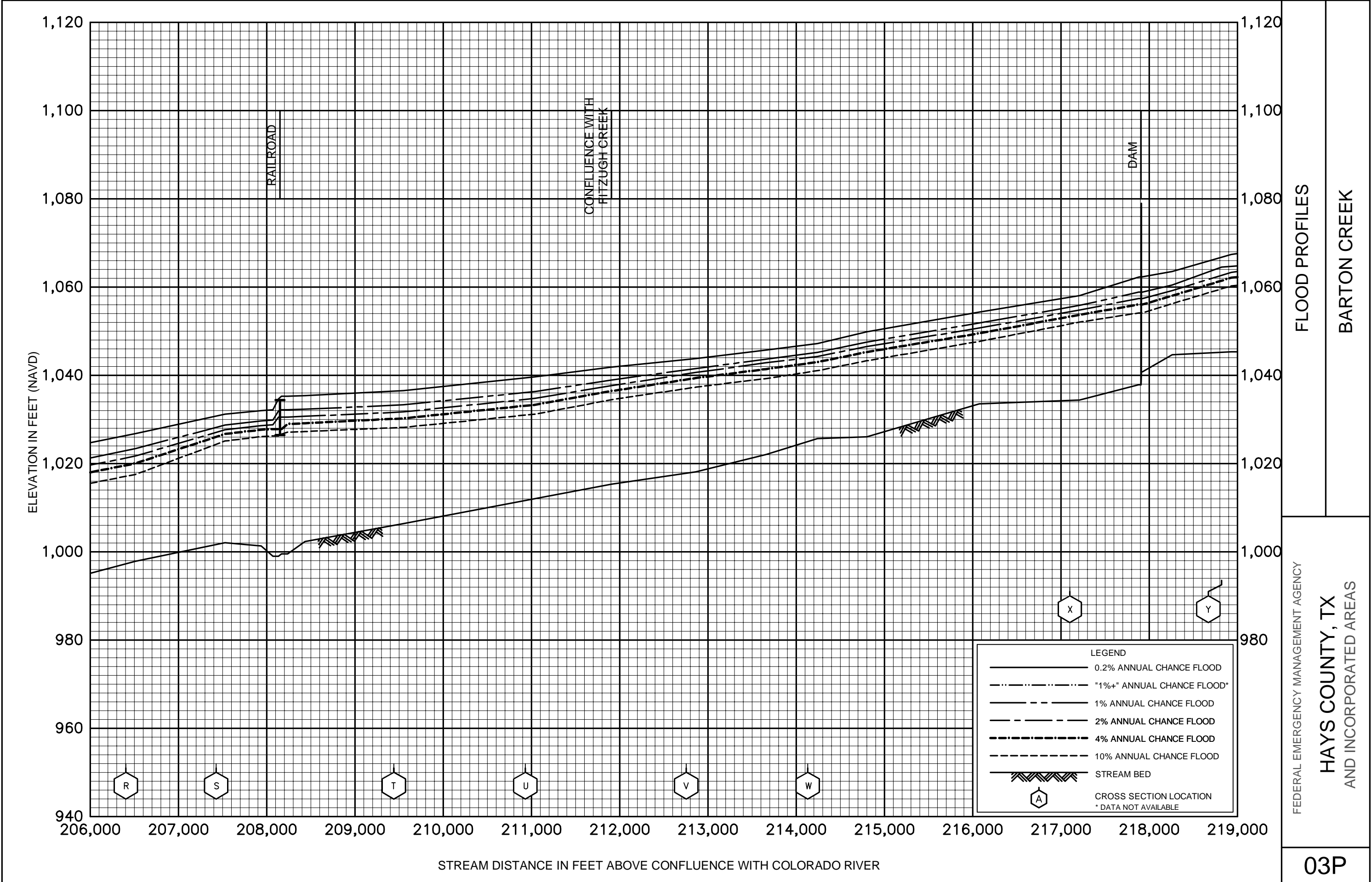
**Table 33: Bibliography and References, (continued)**

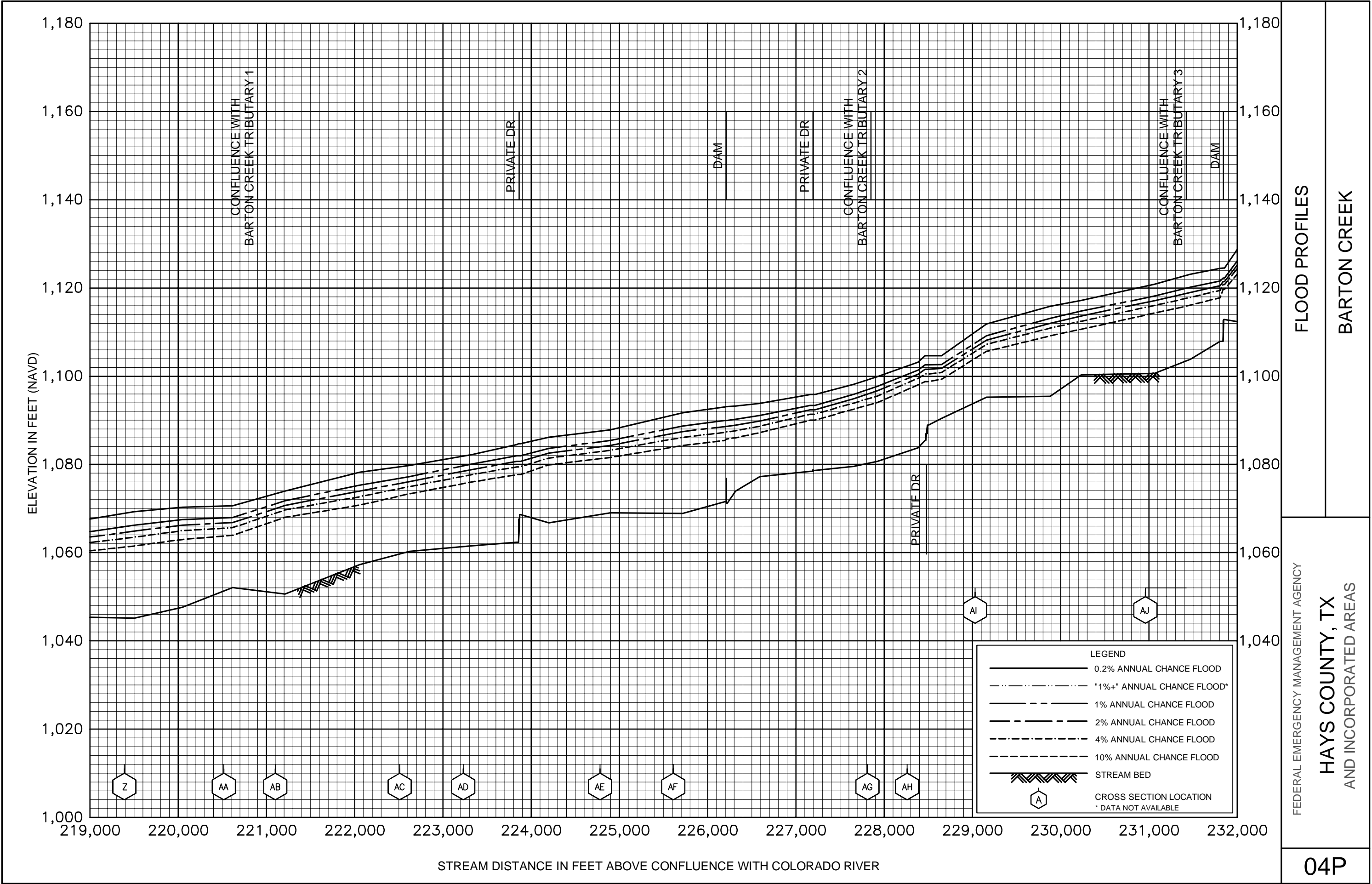
Citation in this FIS	Publisher/ Issuer	<i>Publication Title, "Article," Volume, Number, etc.</i>	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USGS 1986	U.S. Department of Interior, Geological Survey	<i>The Effects of Urbanization on Floods in the Austin Metropolitan Area, Texas</i>		Washington, D.C.	1986	<a href="http://www.usgs.gov">www.usgs.gov</a>

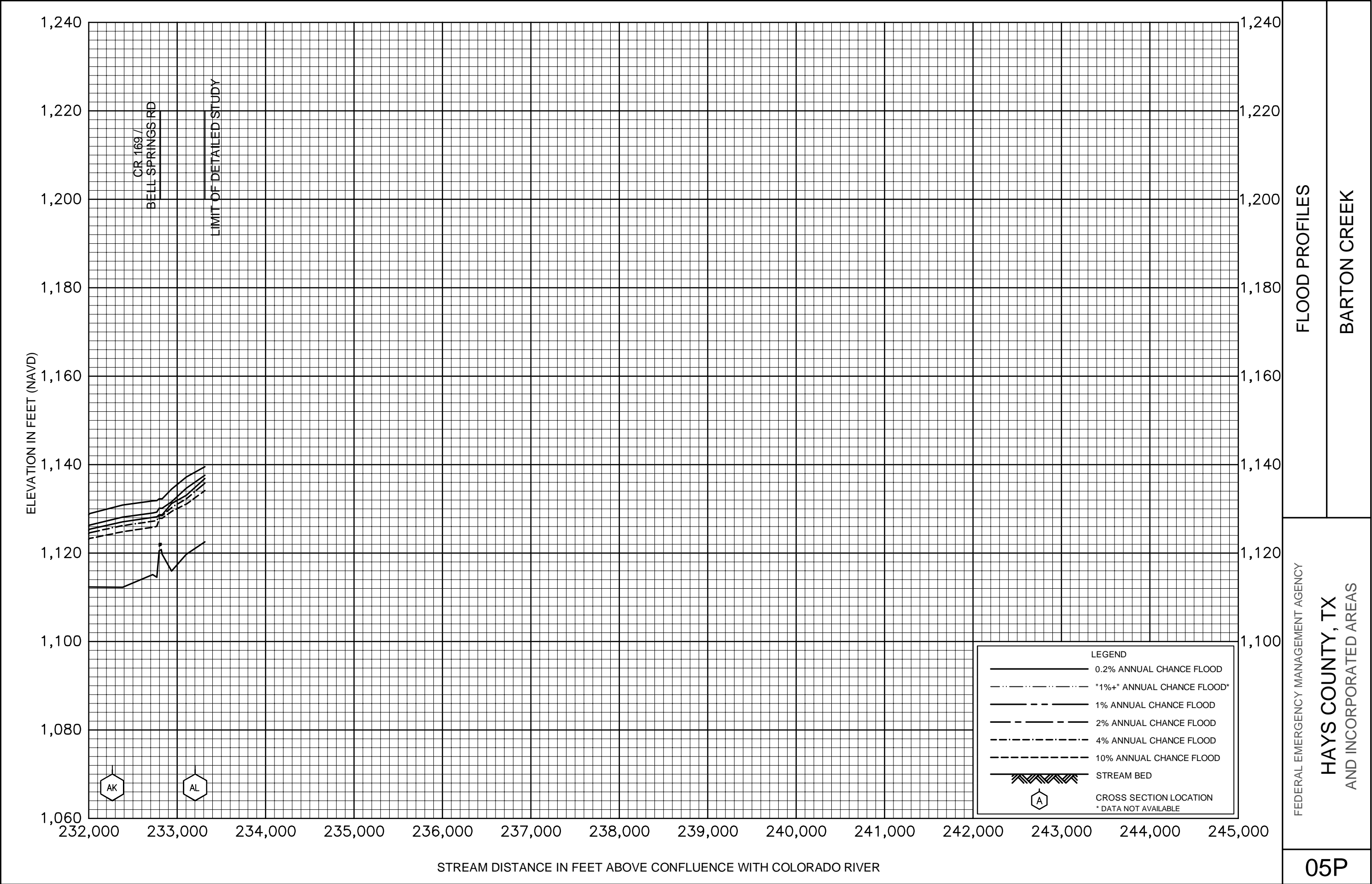












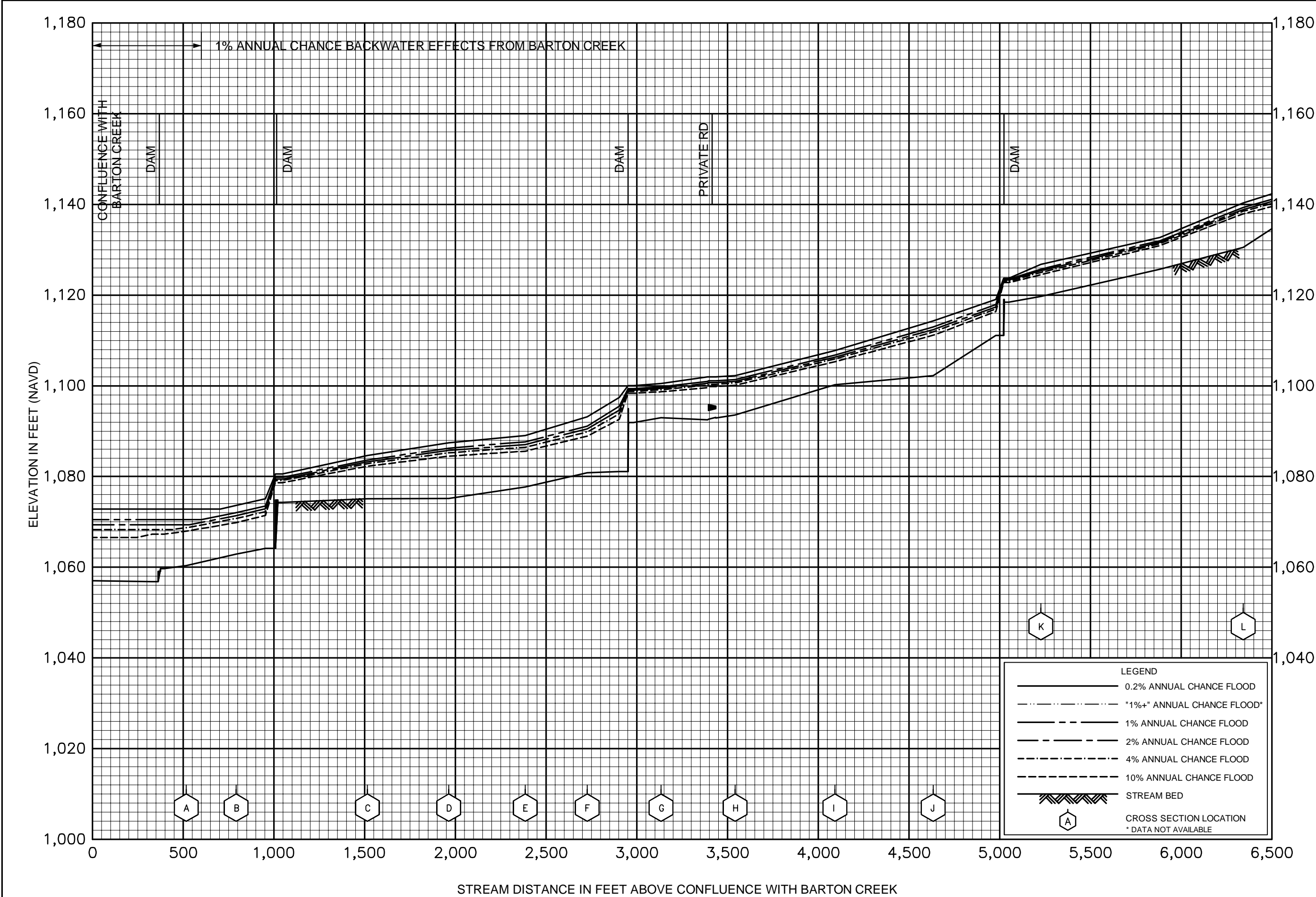
FLOOD PROFILES

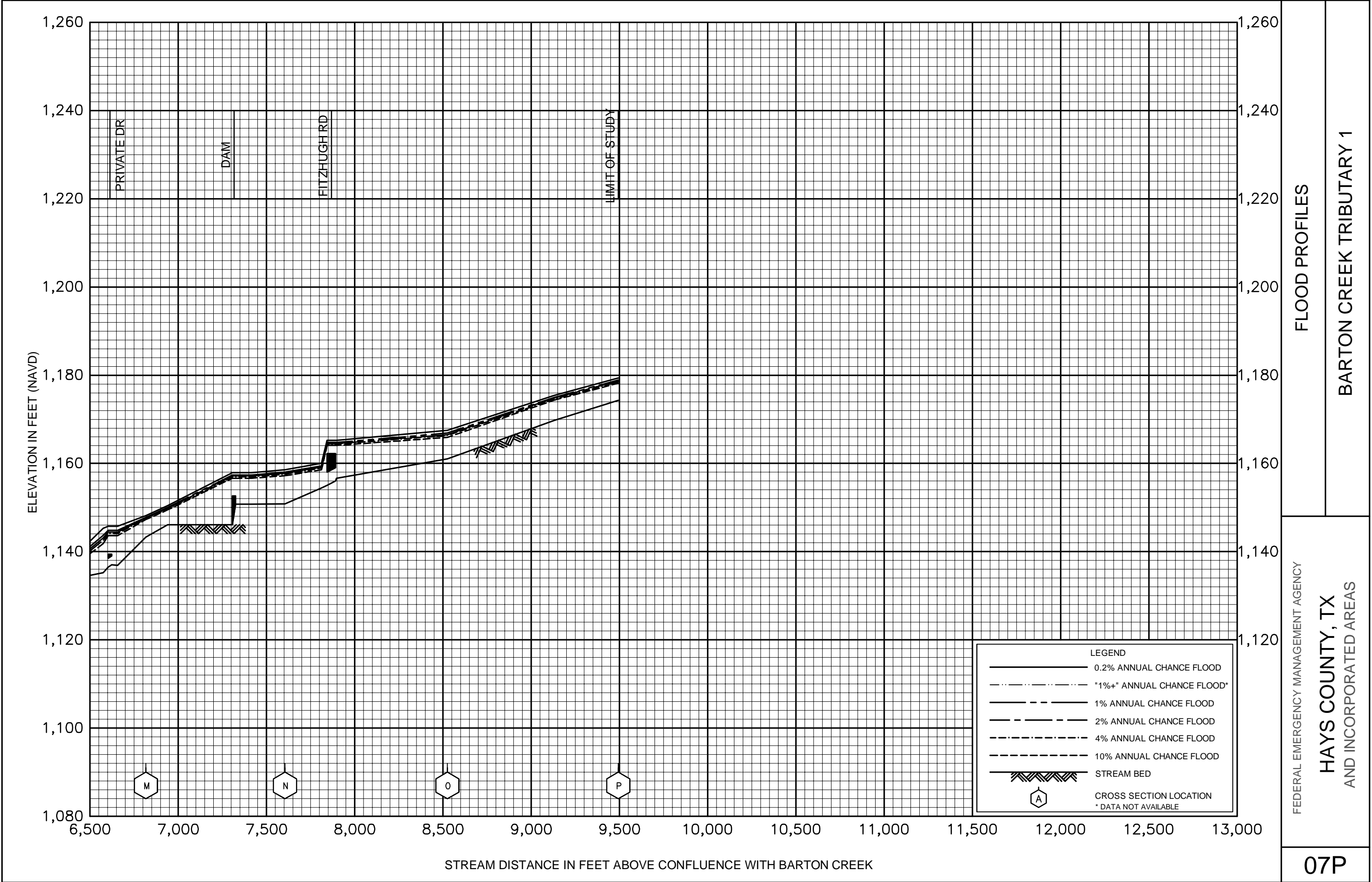
BARTON CREEK

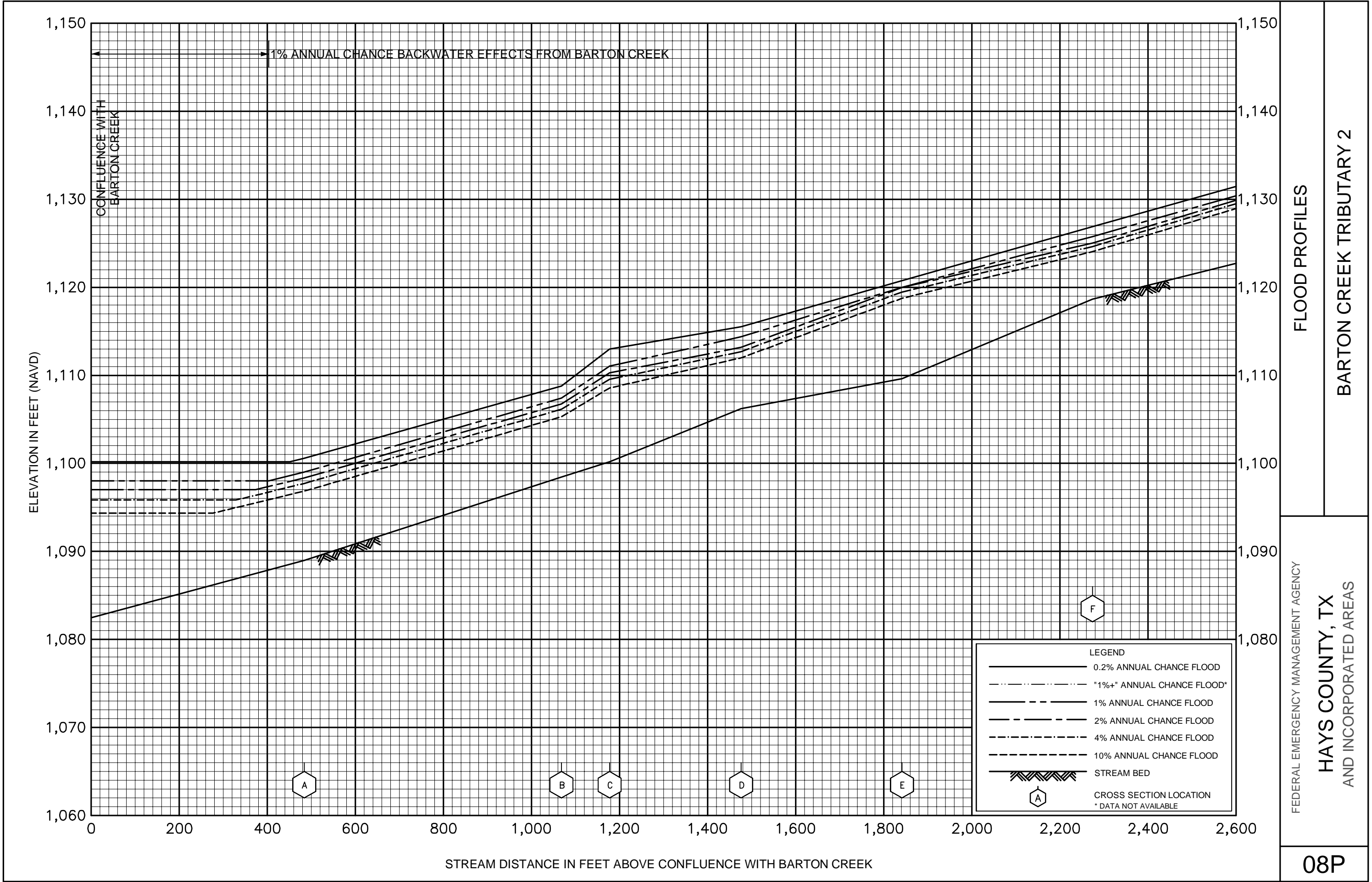
FEDERAL EMERGENCY MANAGEMENT AGENCY

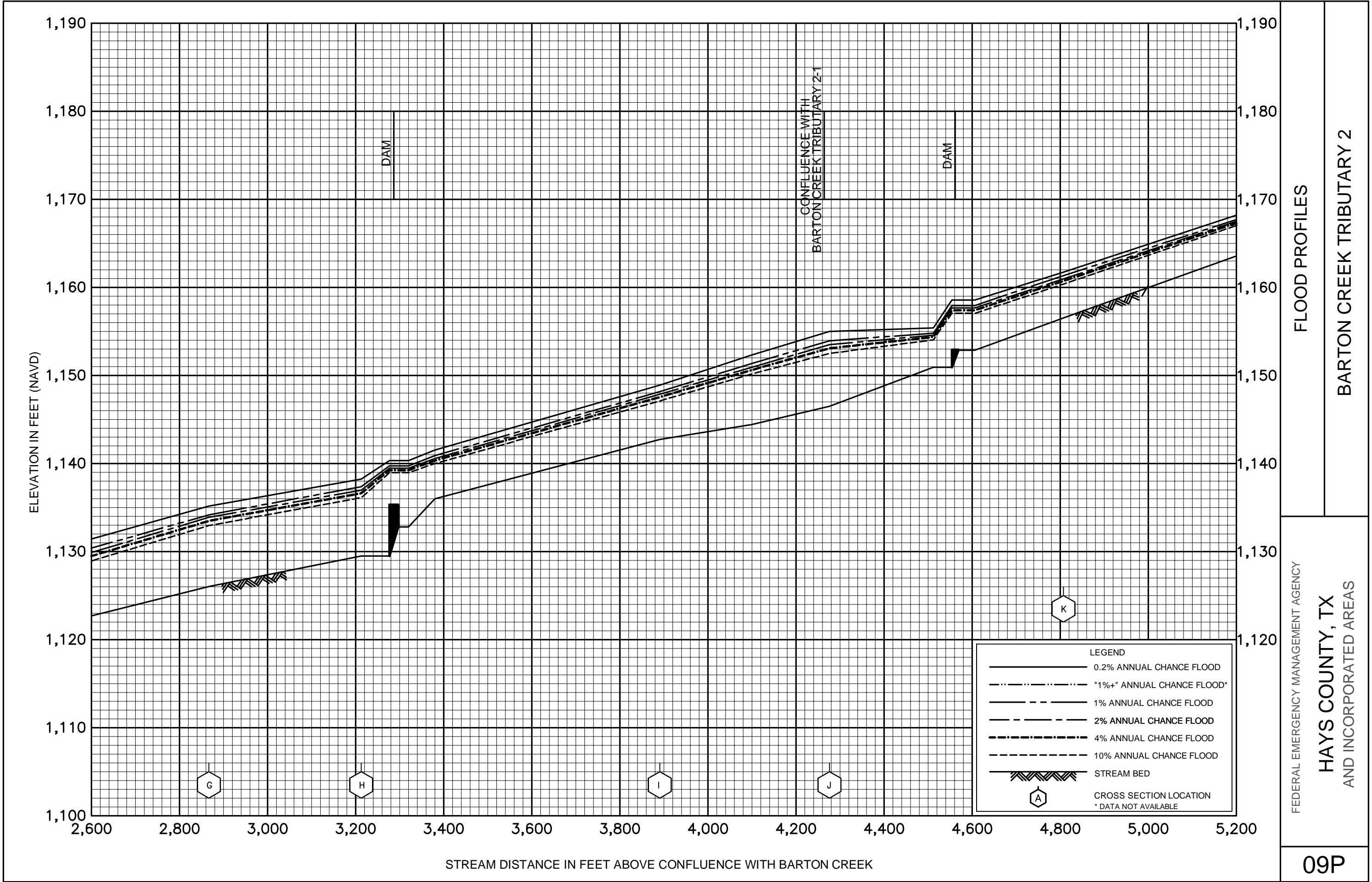
HAYS COUNTY, TX  
AND INCORPORATED AREAS

05P

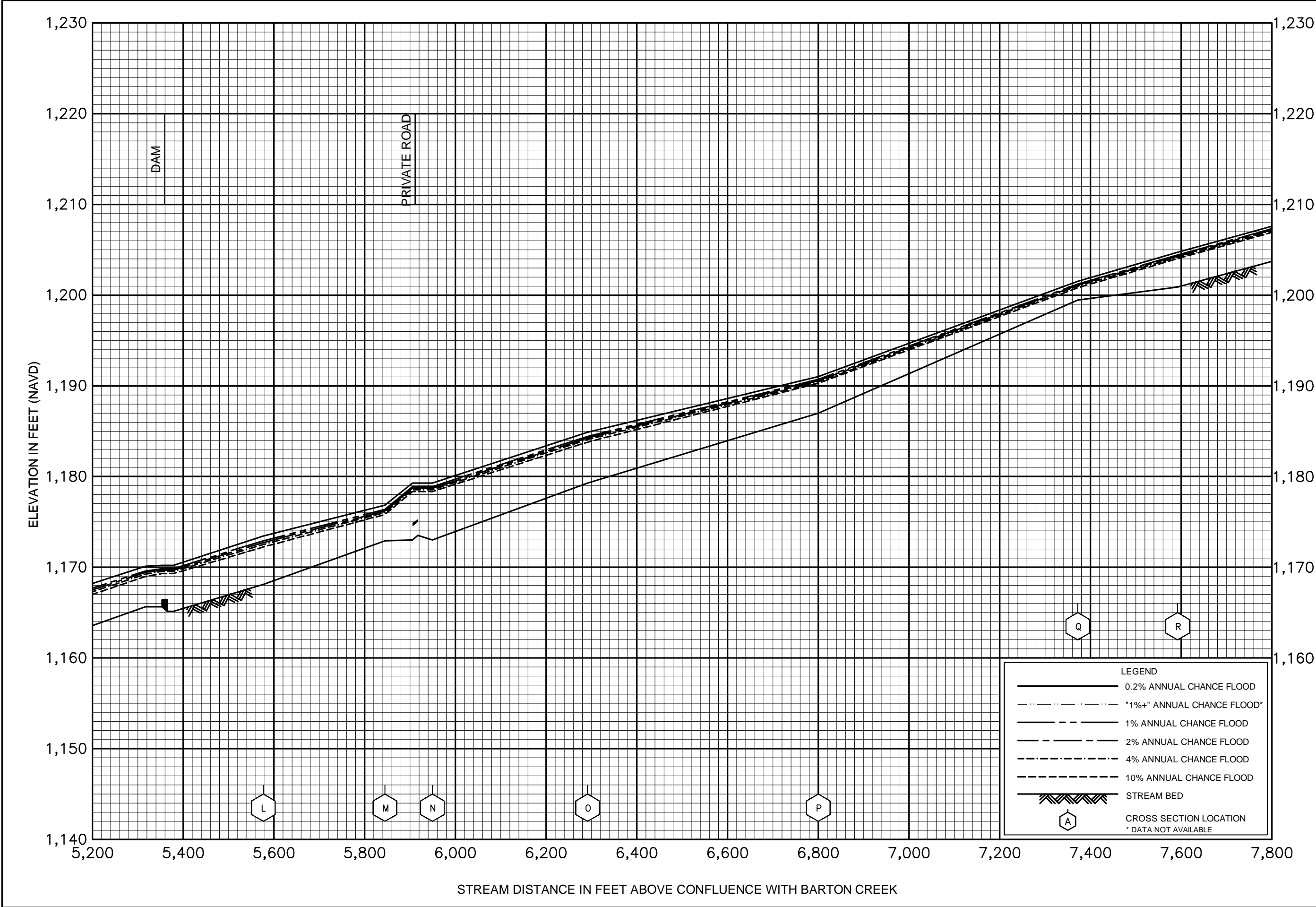


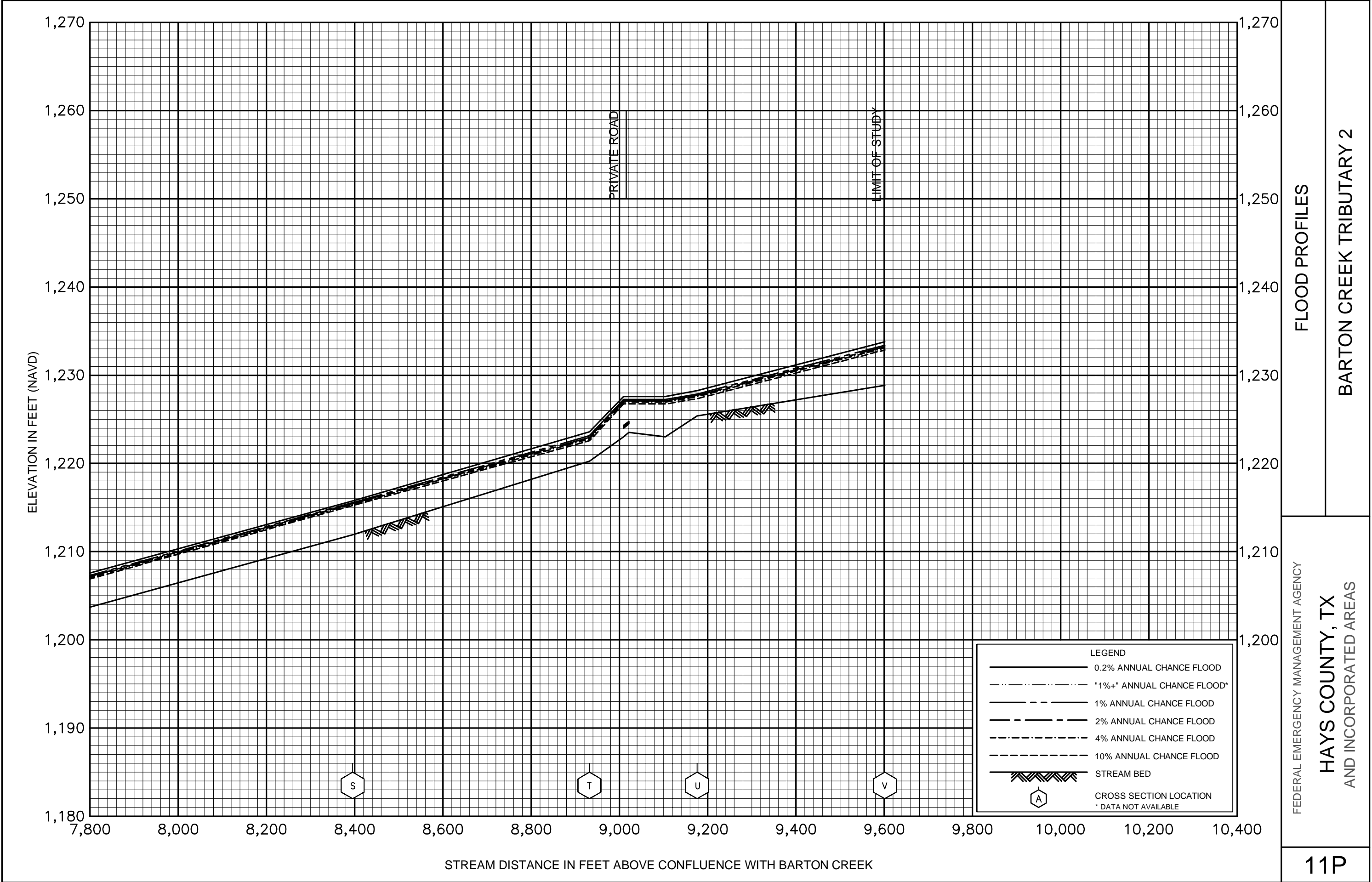










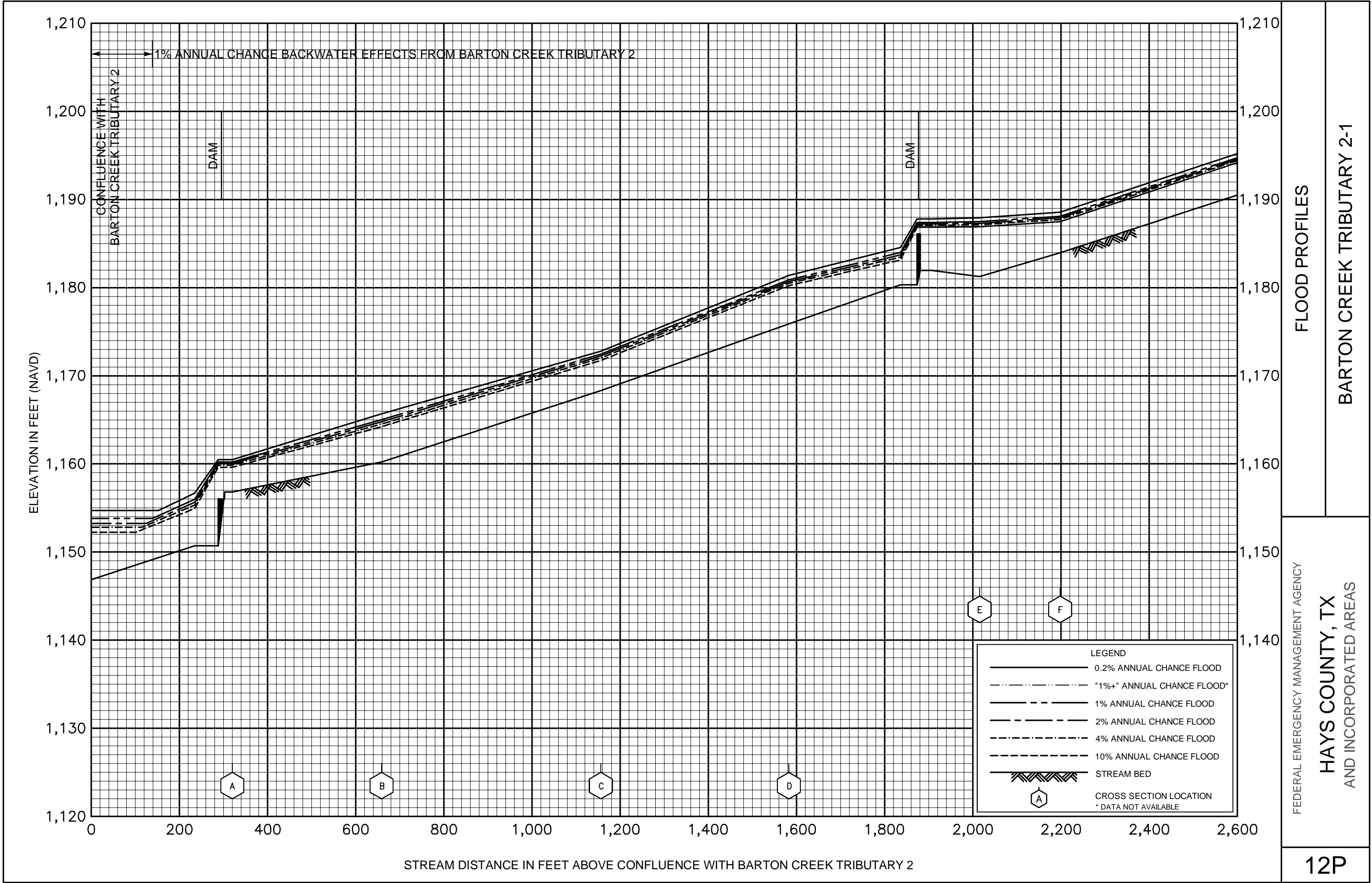


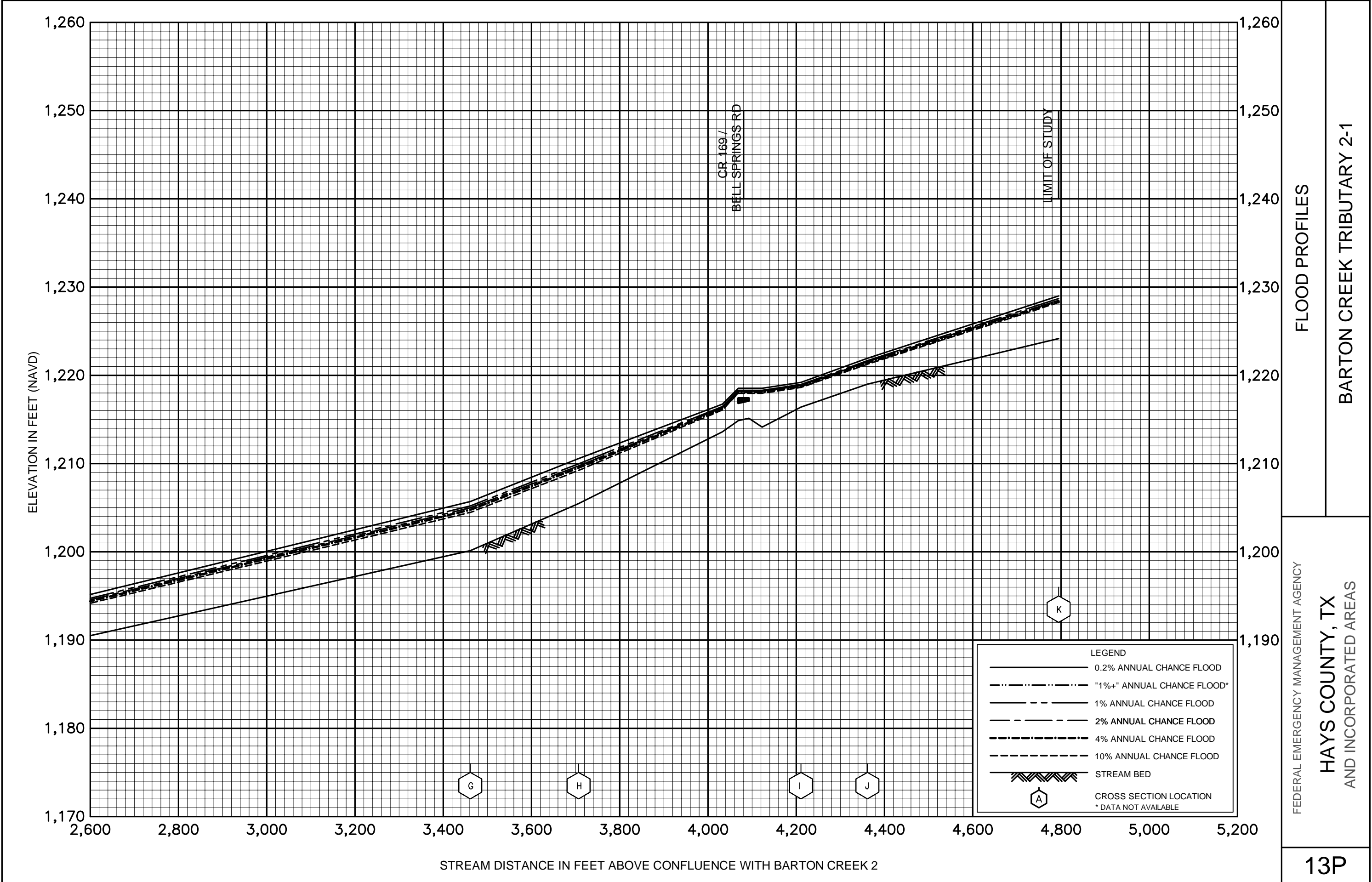
FLOOD PROFILES

BARTON CREEK TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

HAYS COUNTY, TX  
AND INCORPORATED AREAS



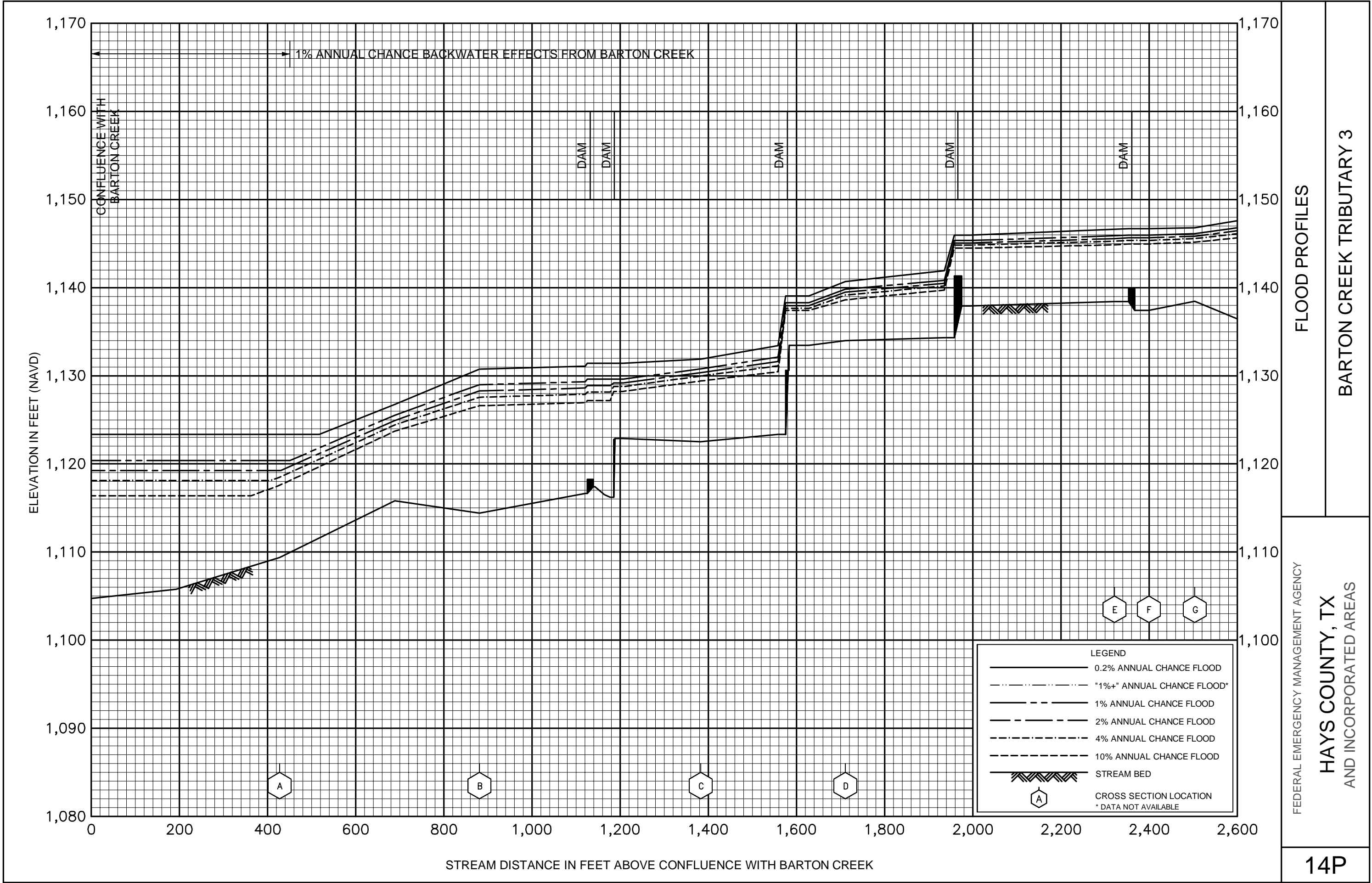


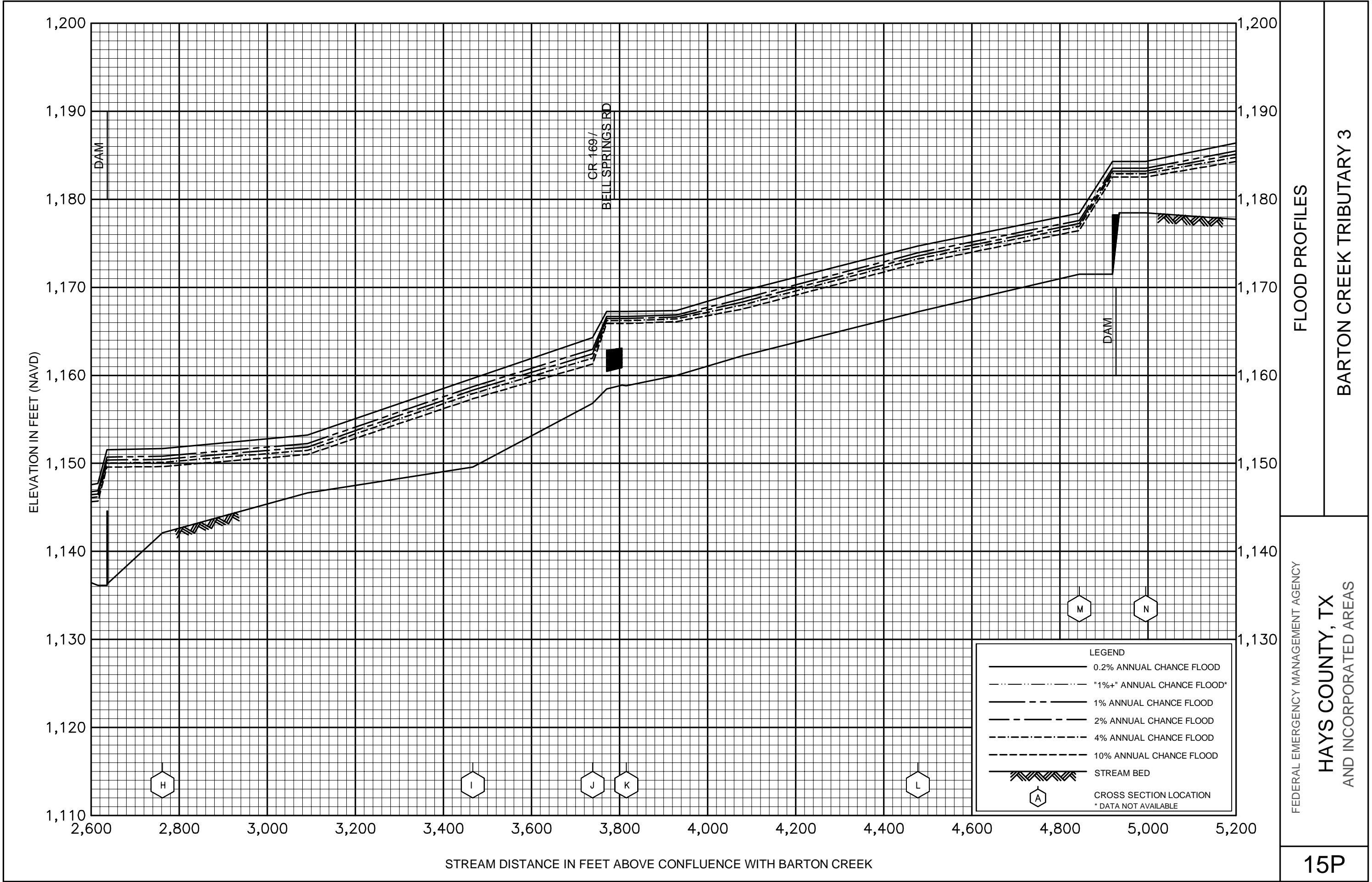
FLOOD PROFILES

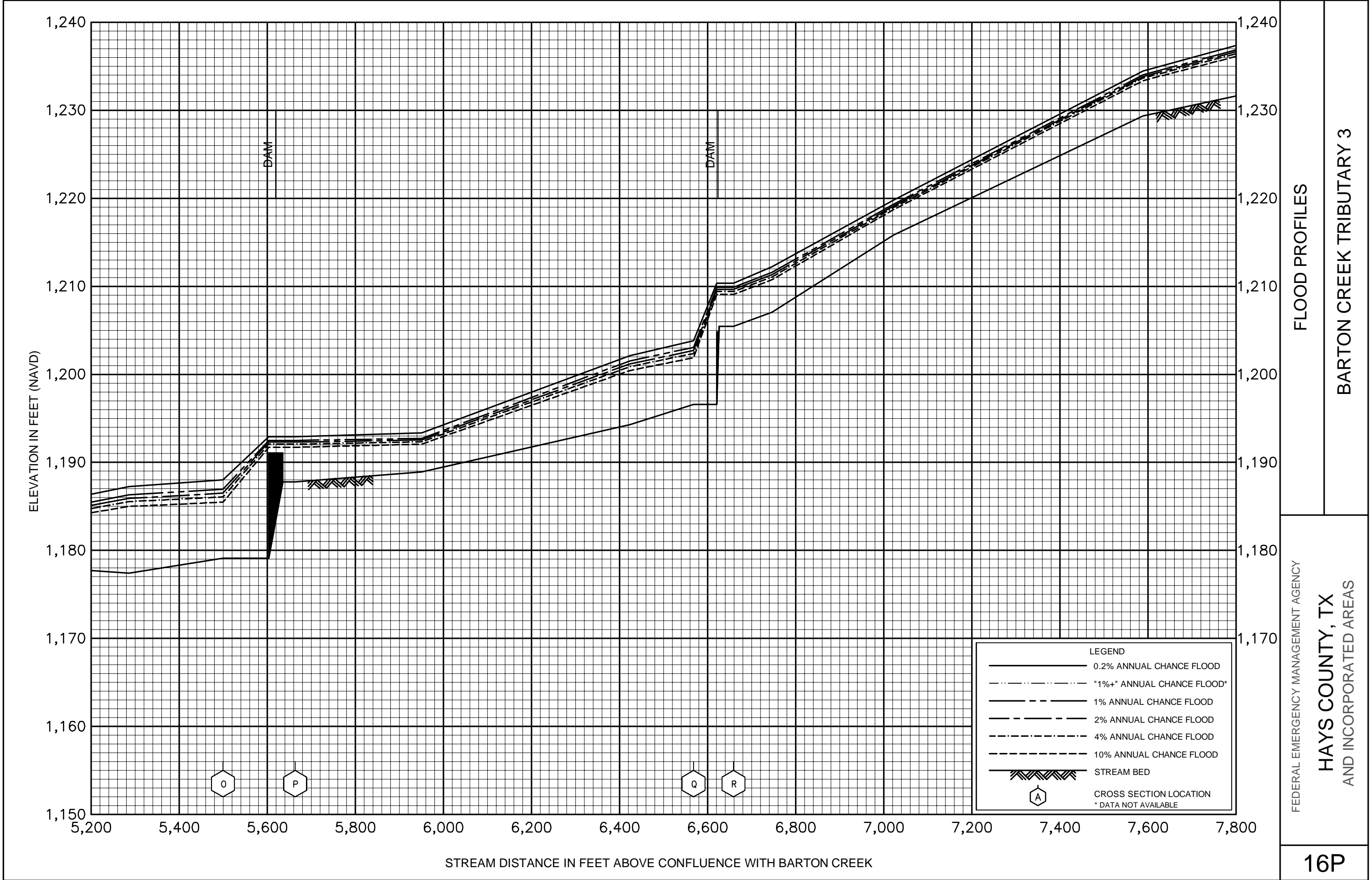
BARTON CREEK TRIBUTARY 2-1

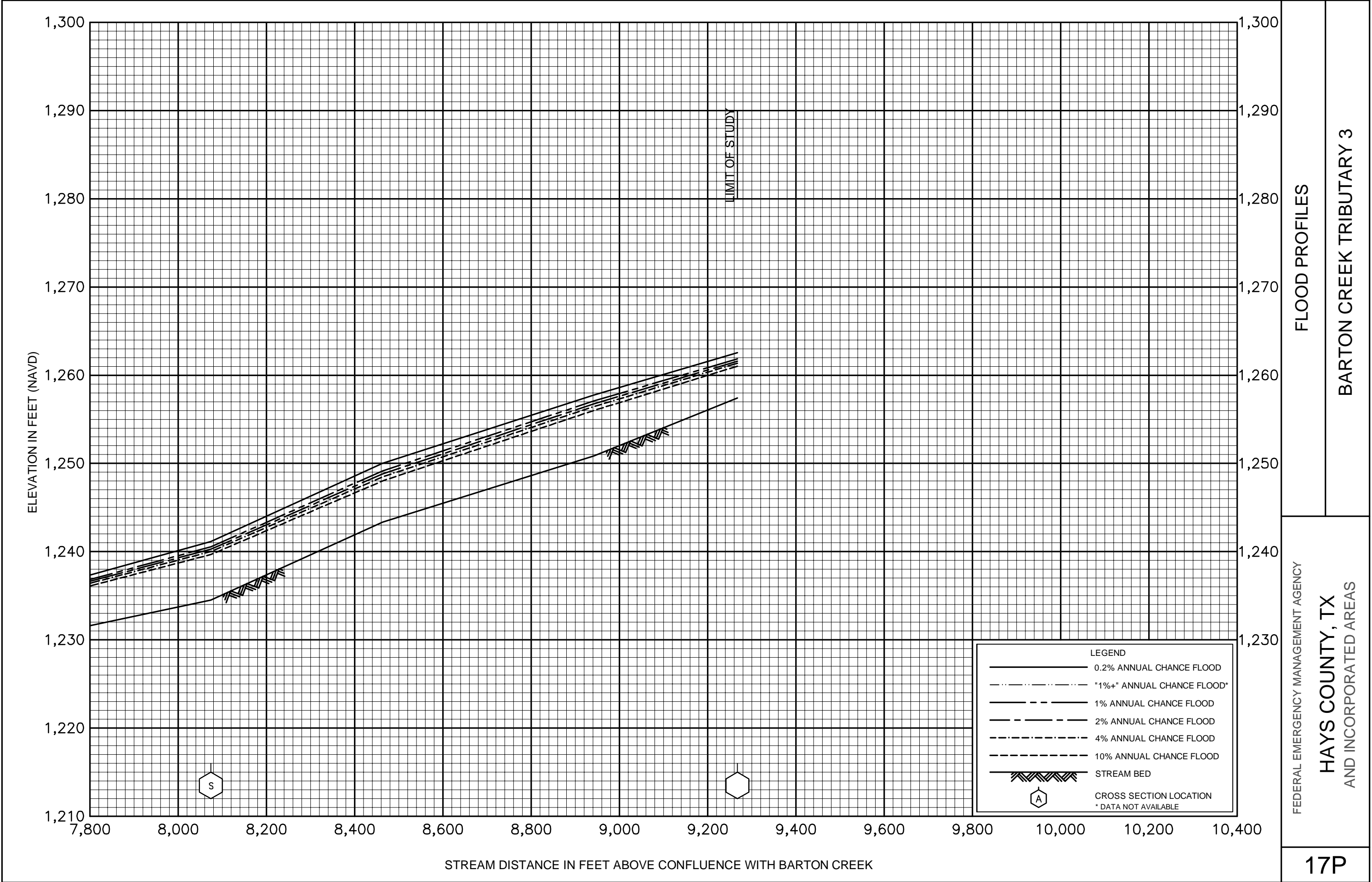
FEDERAL EMERGENCY MANAGEMENT AGENCY

HAYS COUNTY, TX  
AND INCORPORATED AREAS









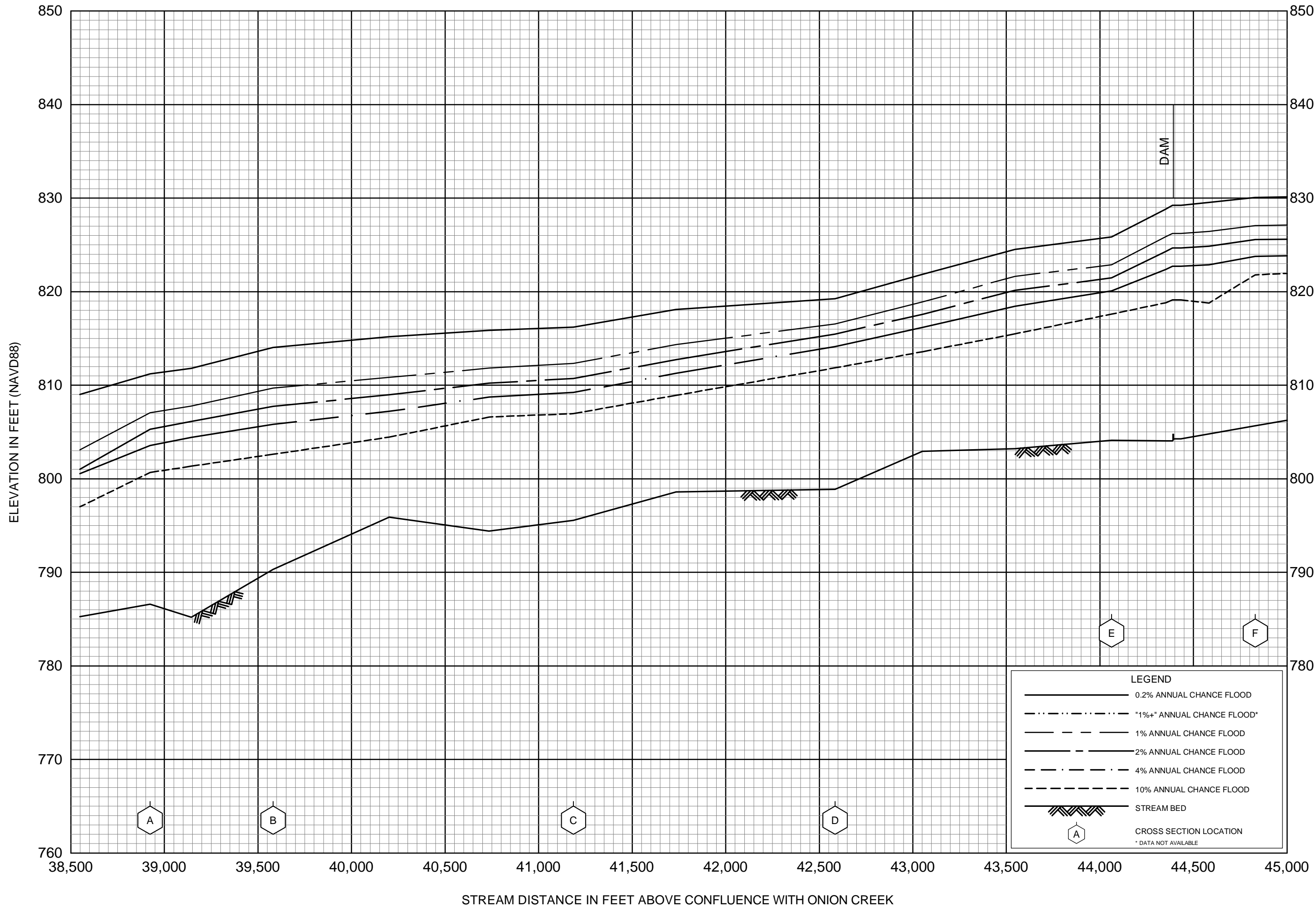
FLOOD PROFILES

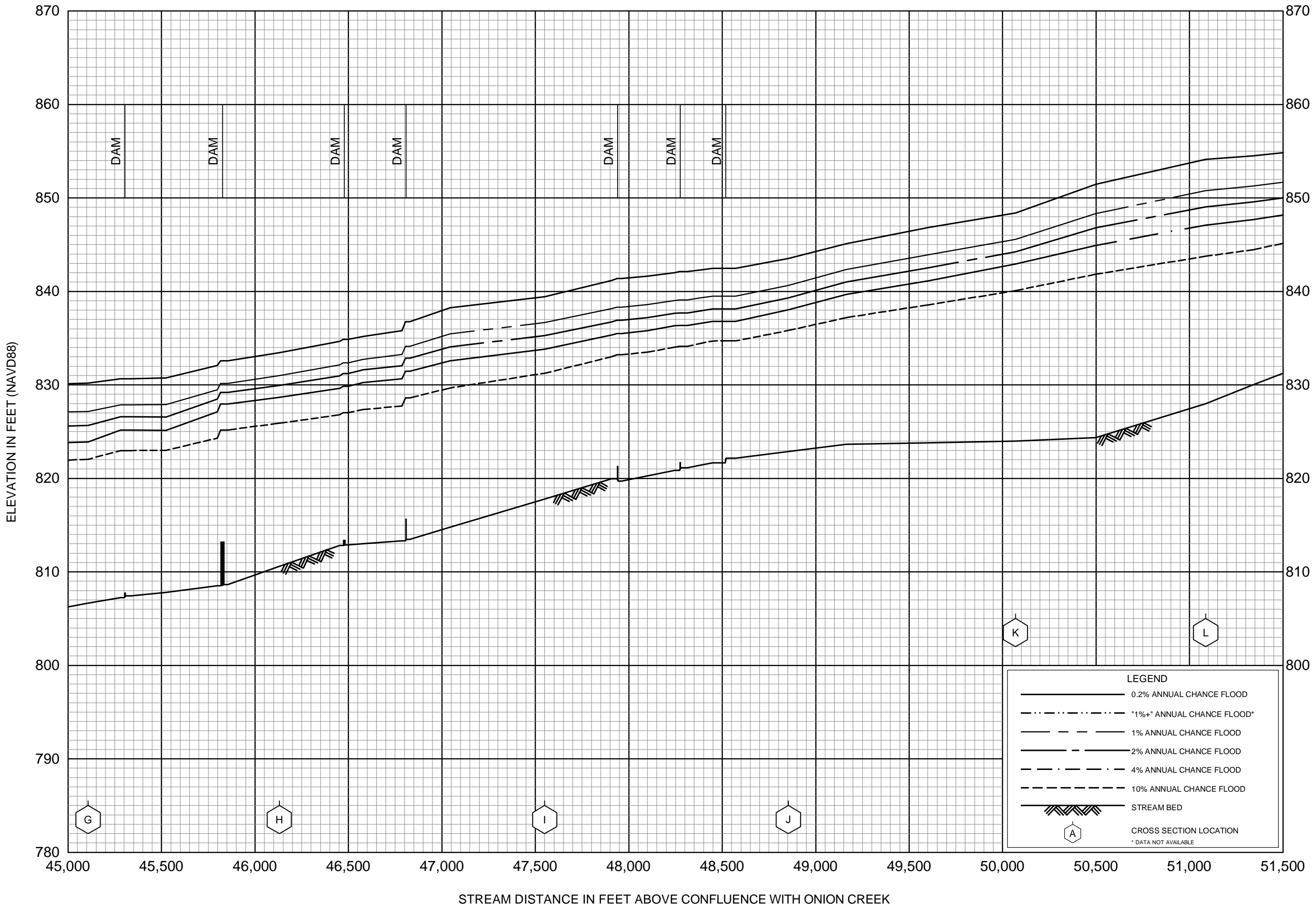
BARTON CREEK TRIBUTARY 3

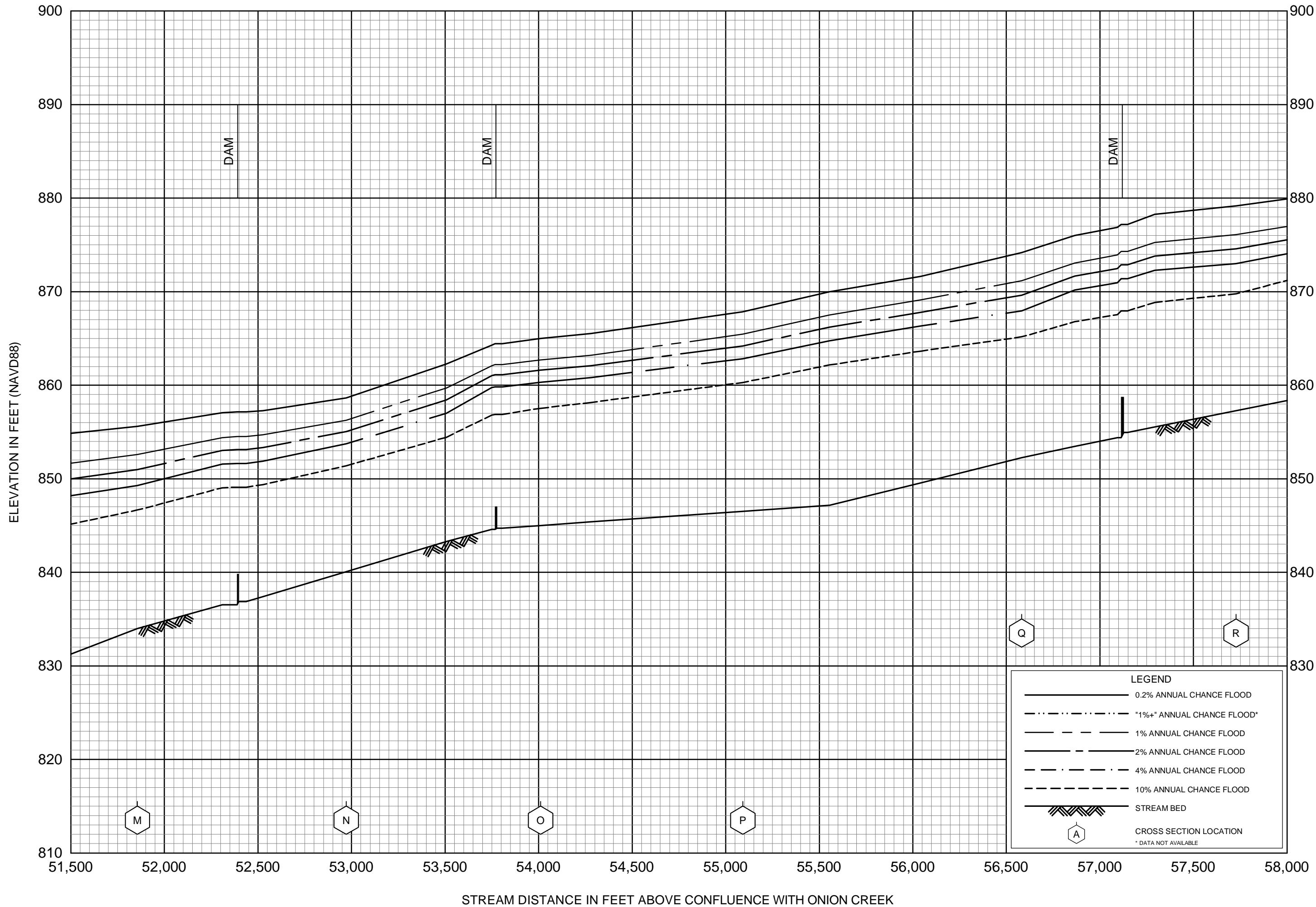
FEDERAL EMERGENCY MANAGEMENT AGENCY

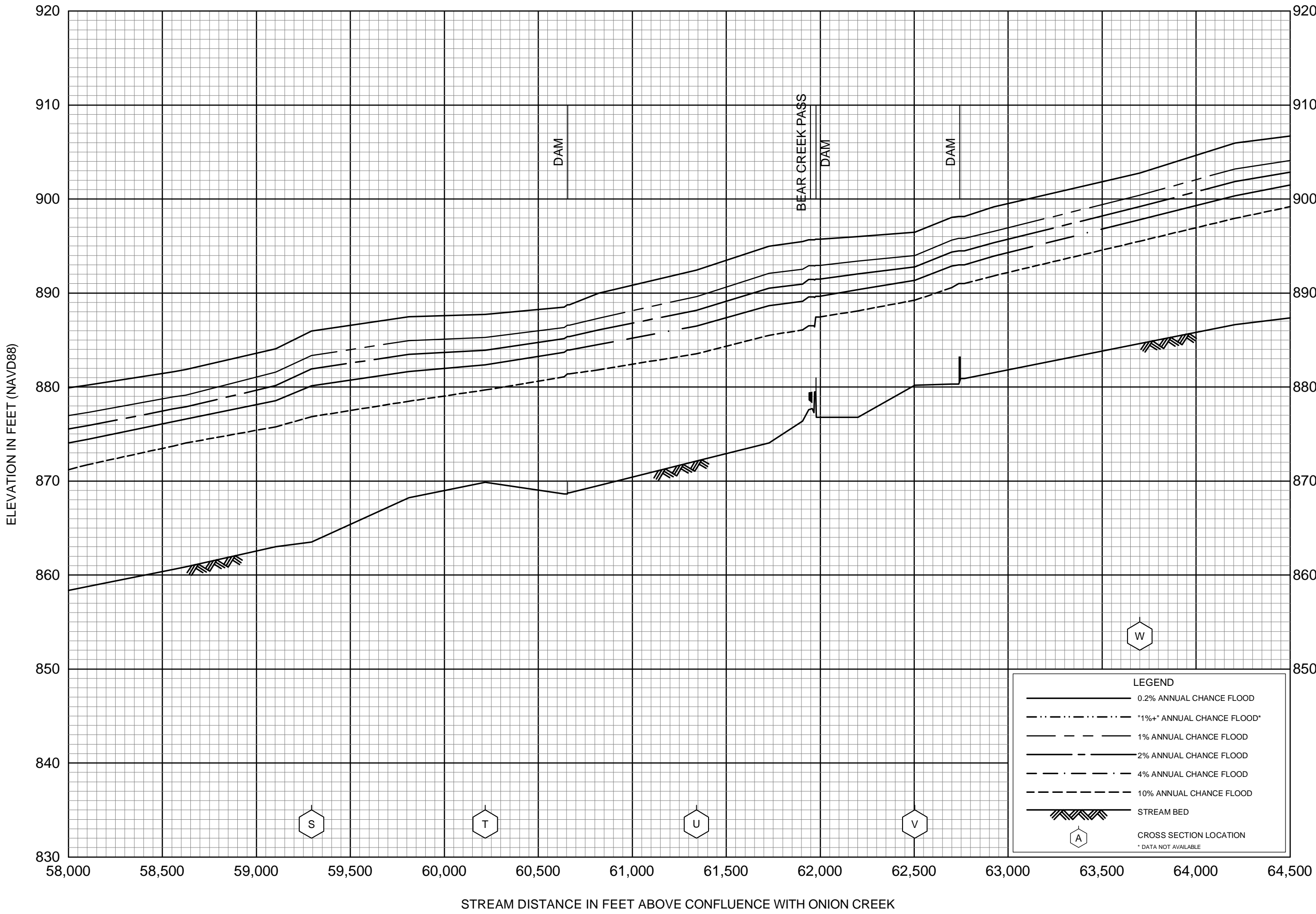
HAYS COUNTY, TX  
AND INCORPORATED AREAS

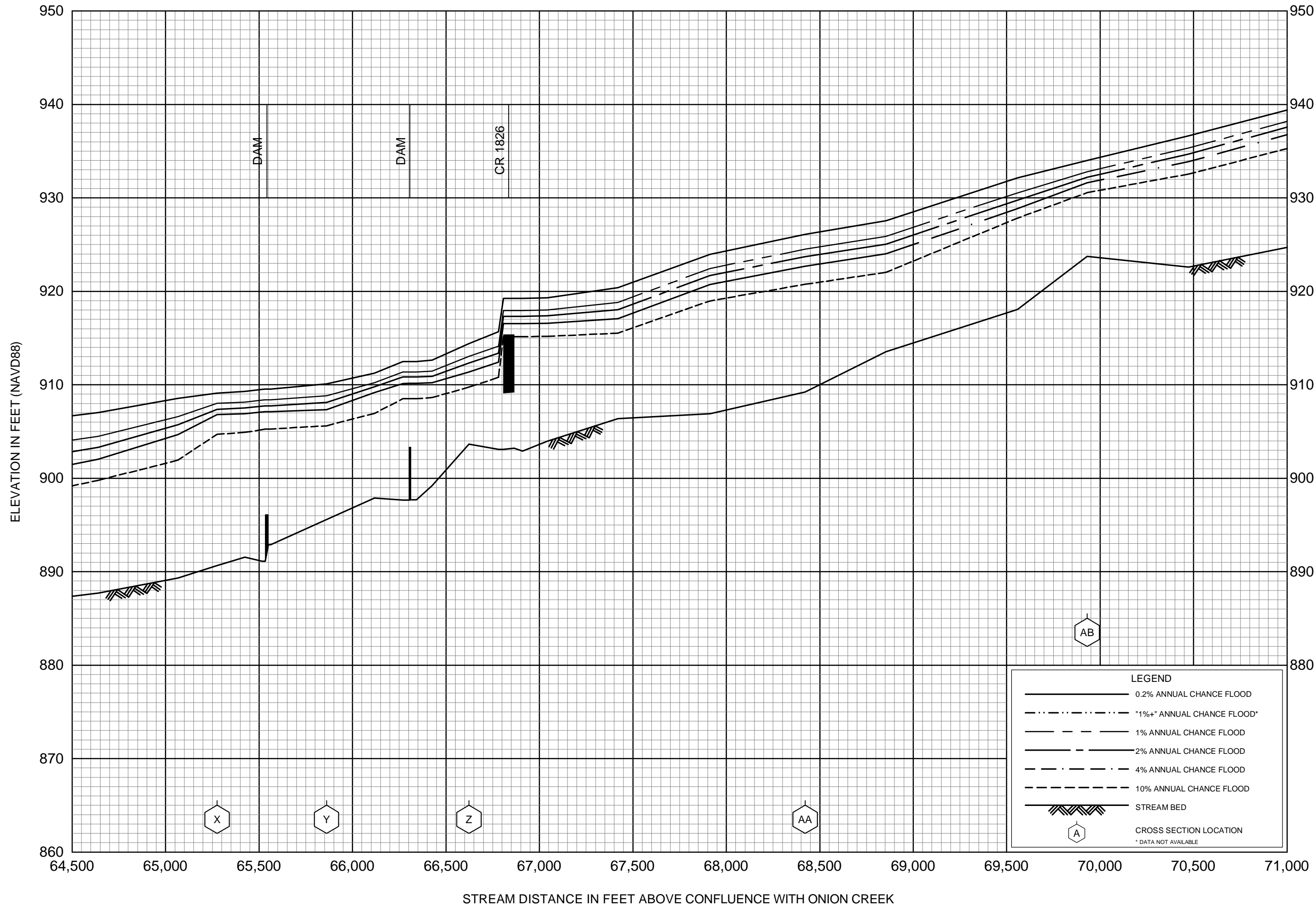


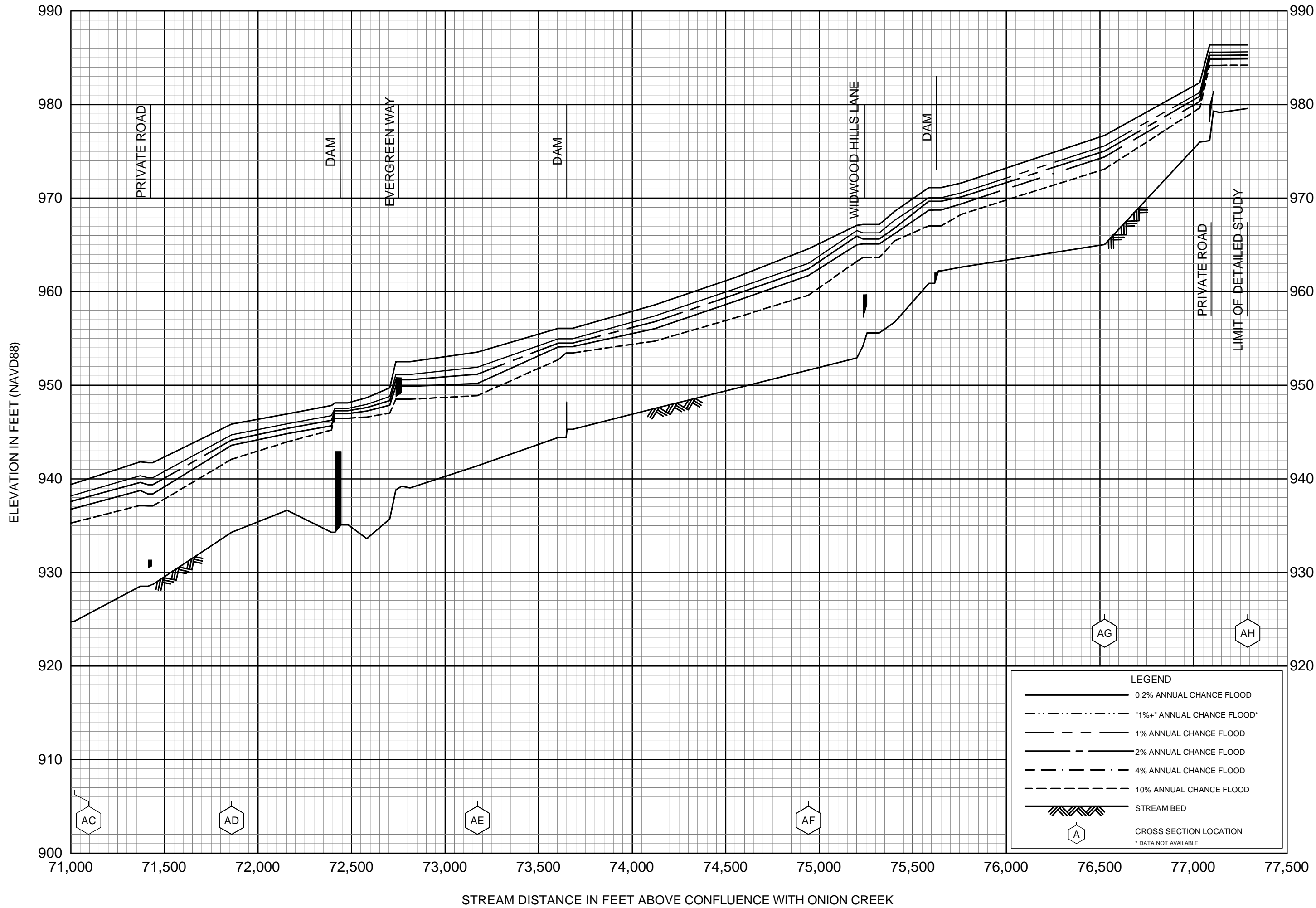


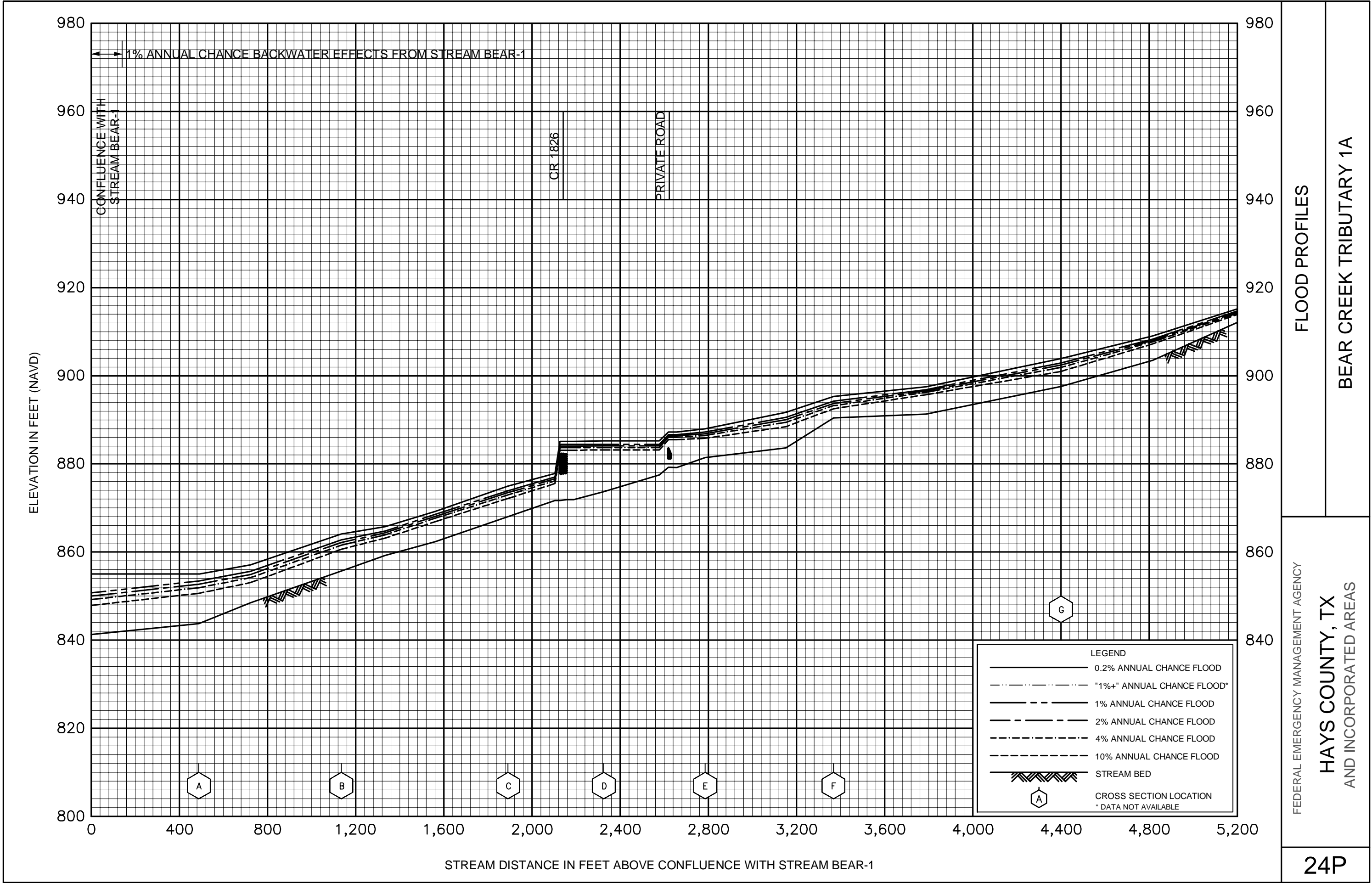


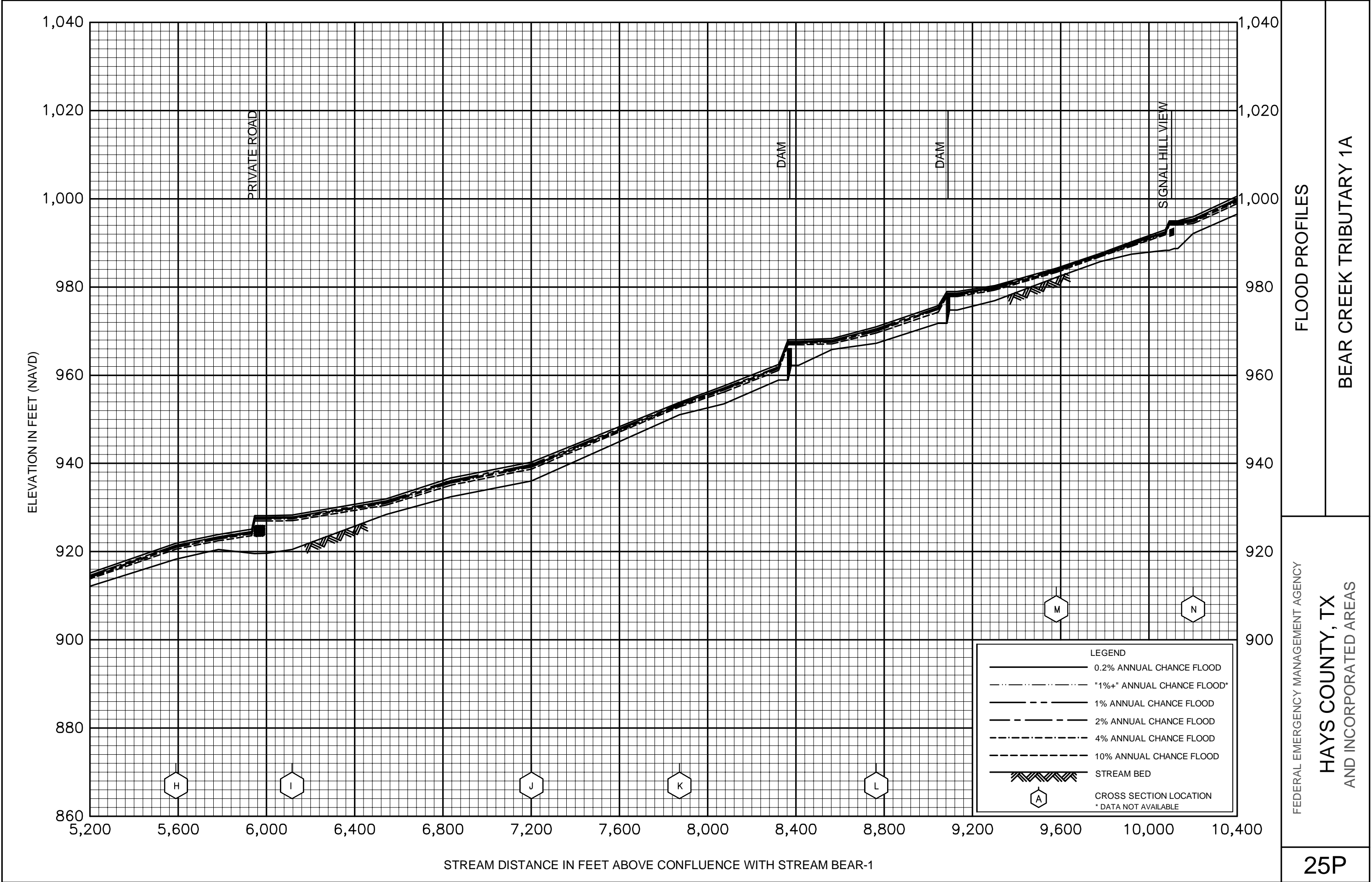




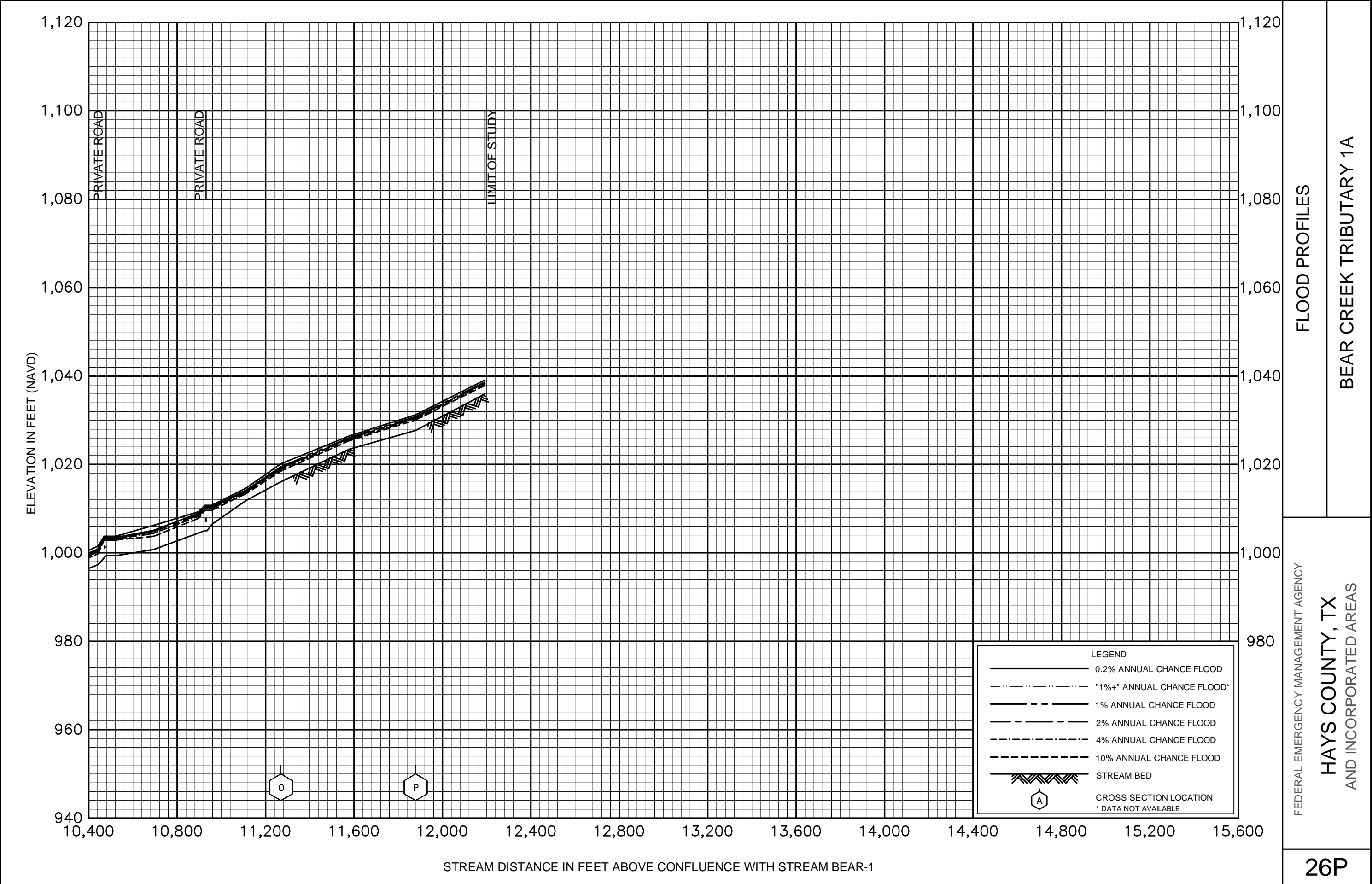










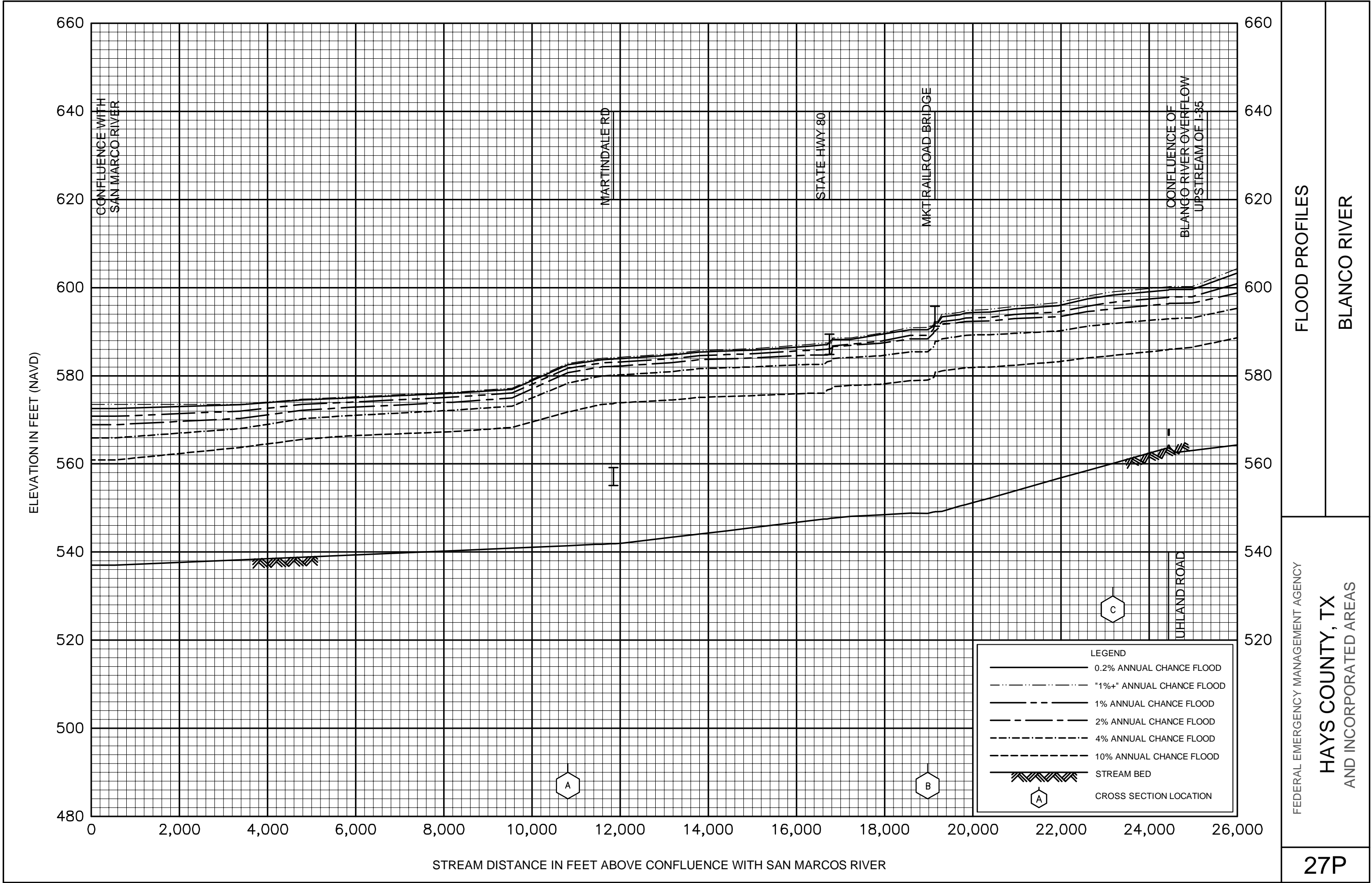


FLOOD PROFILES

BEAR CREEK TRIBUTARY 1A

FEDERAL EMERGENCY MANAGEMENT AGENCY

HAYS COUNTY, TX  
AND INCORPORATED AREAS

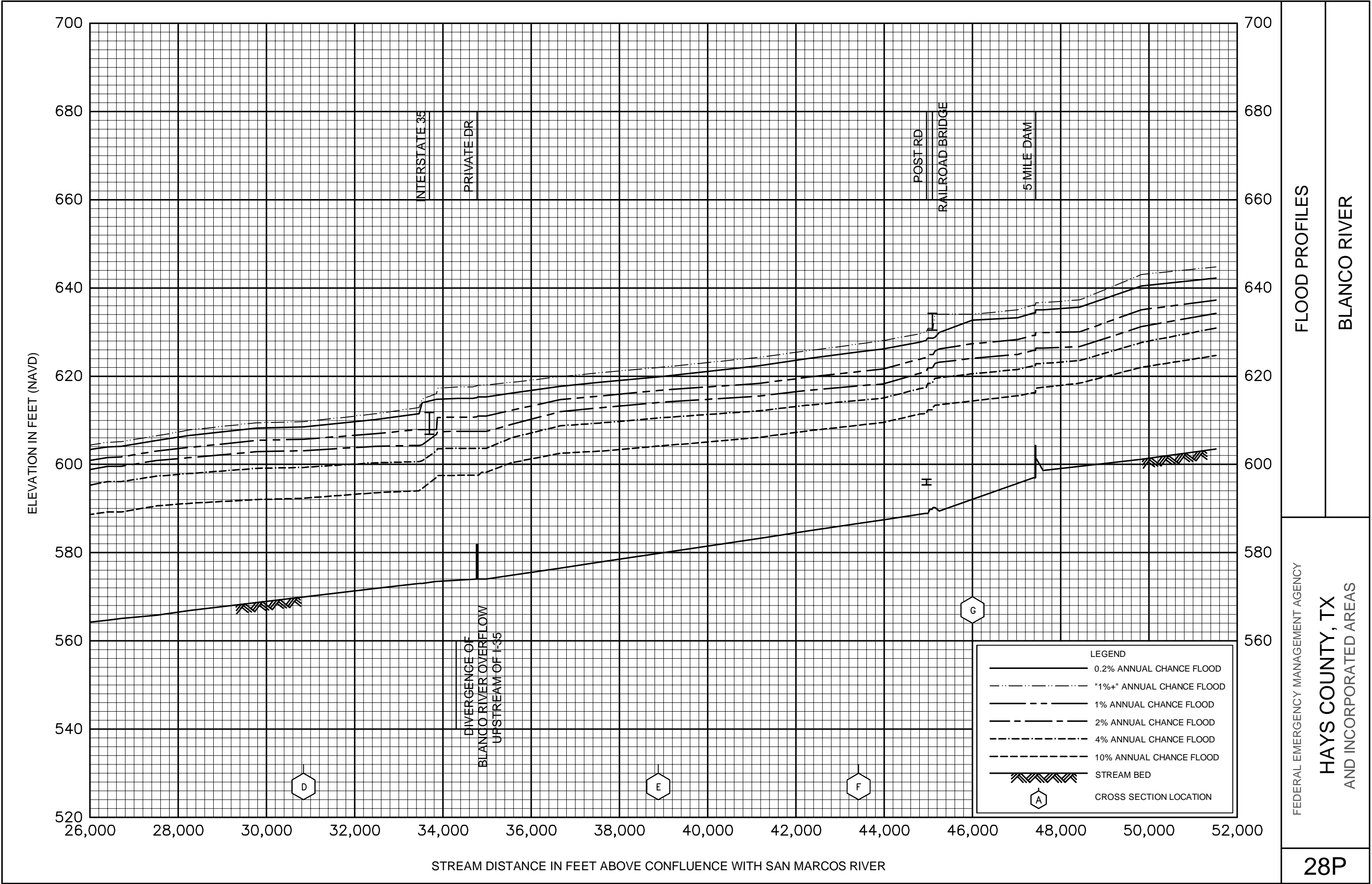


FLOOD PROFILES

BLANCO RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

HAYS COUNTY, TX  
AND INCORPORATED AREAS



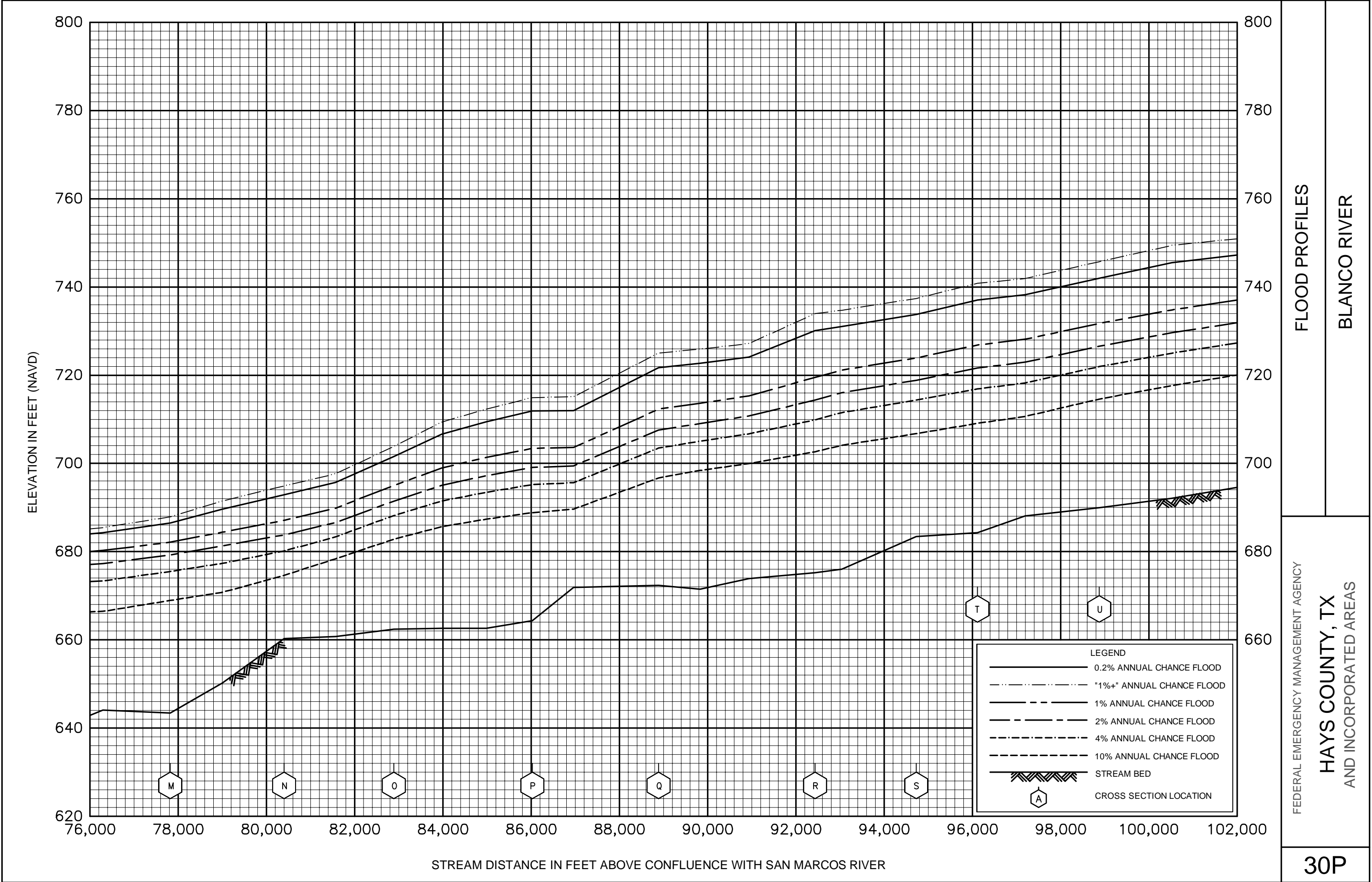
FLOOD PROFILES

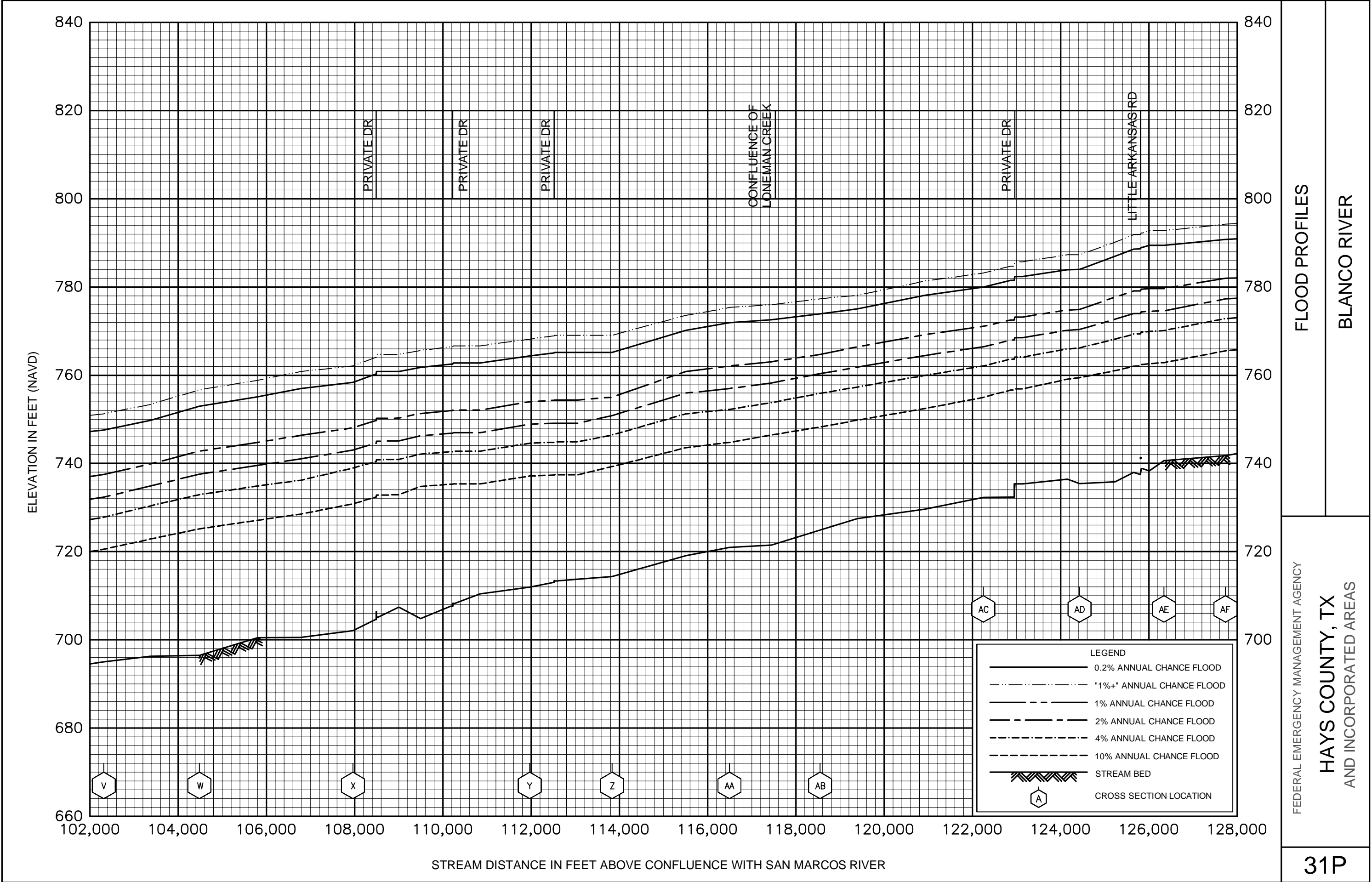
BLANCO RIVER

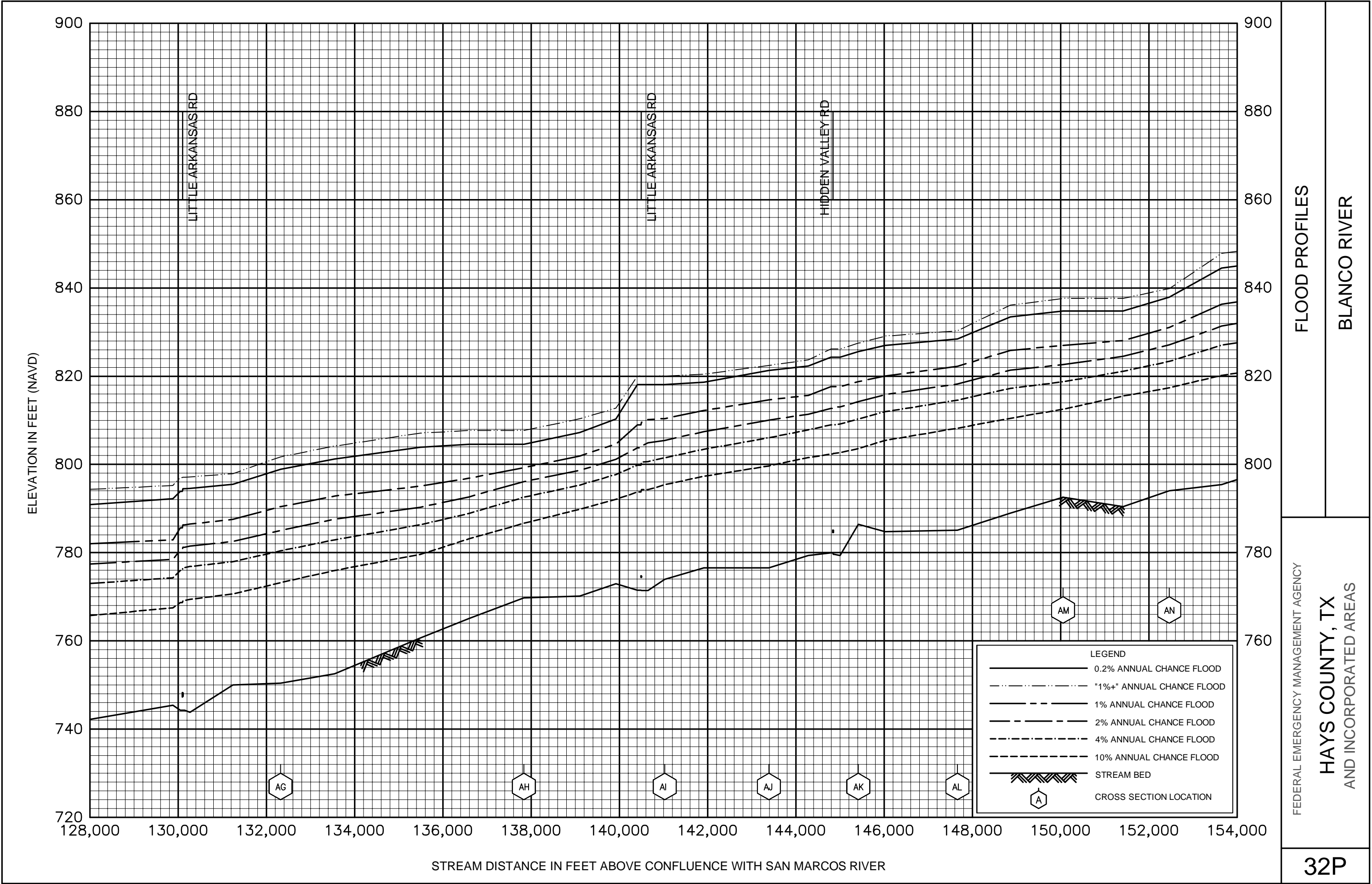
FEDERAL EMERGENCY MANAGEMENT AGENCY

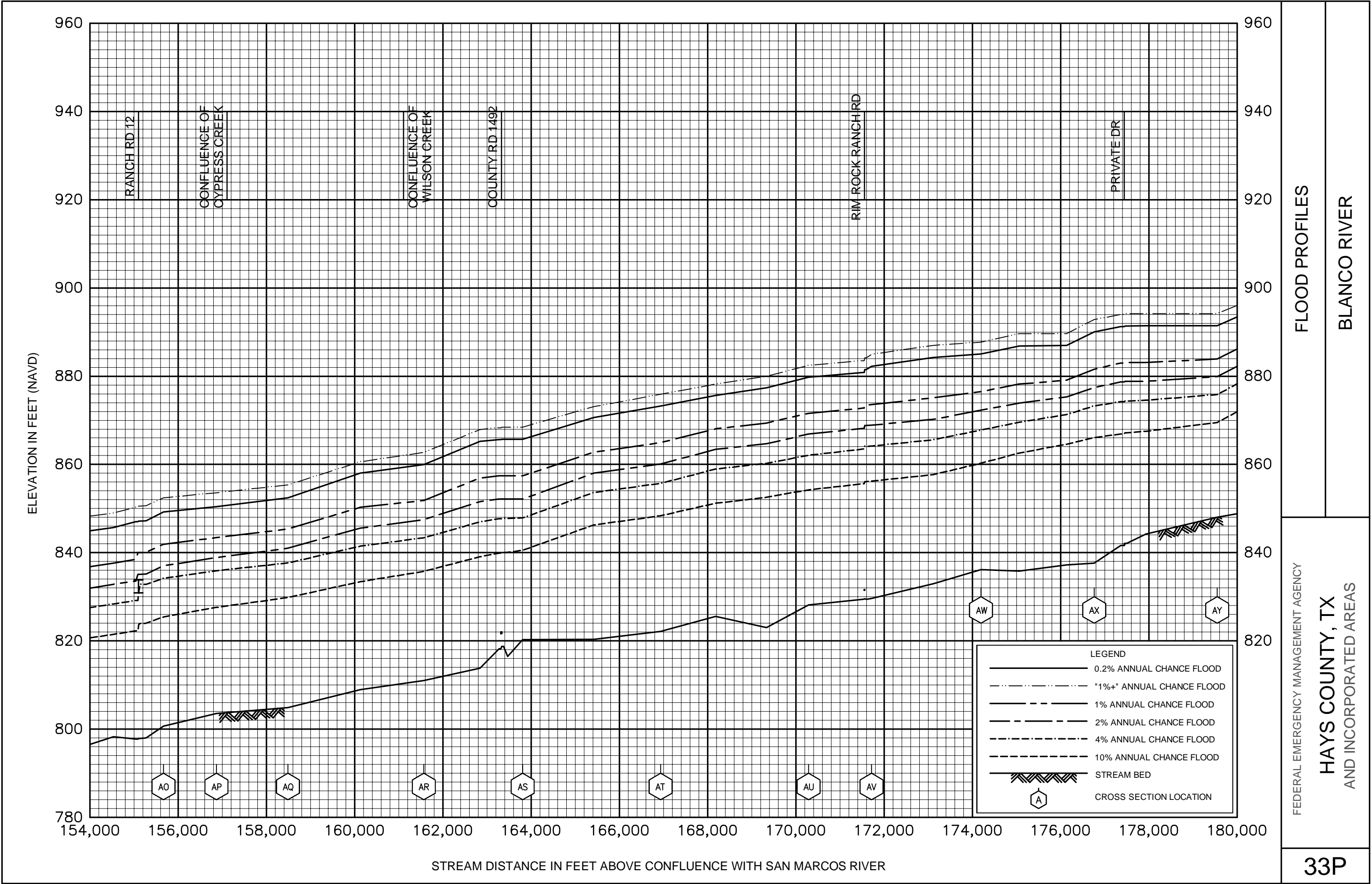
HAYS COUNTY, TX  
AND INCORPORATED AREAS



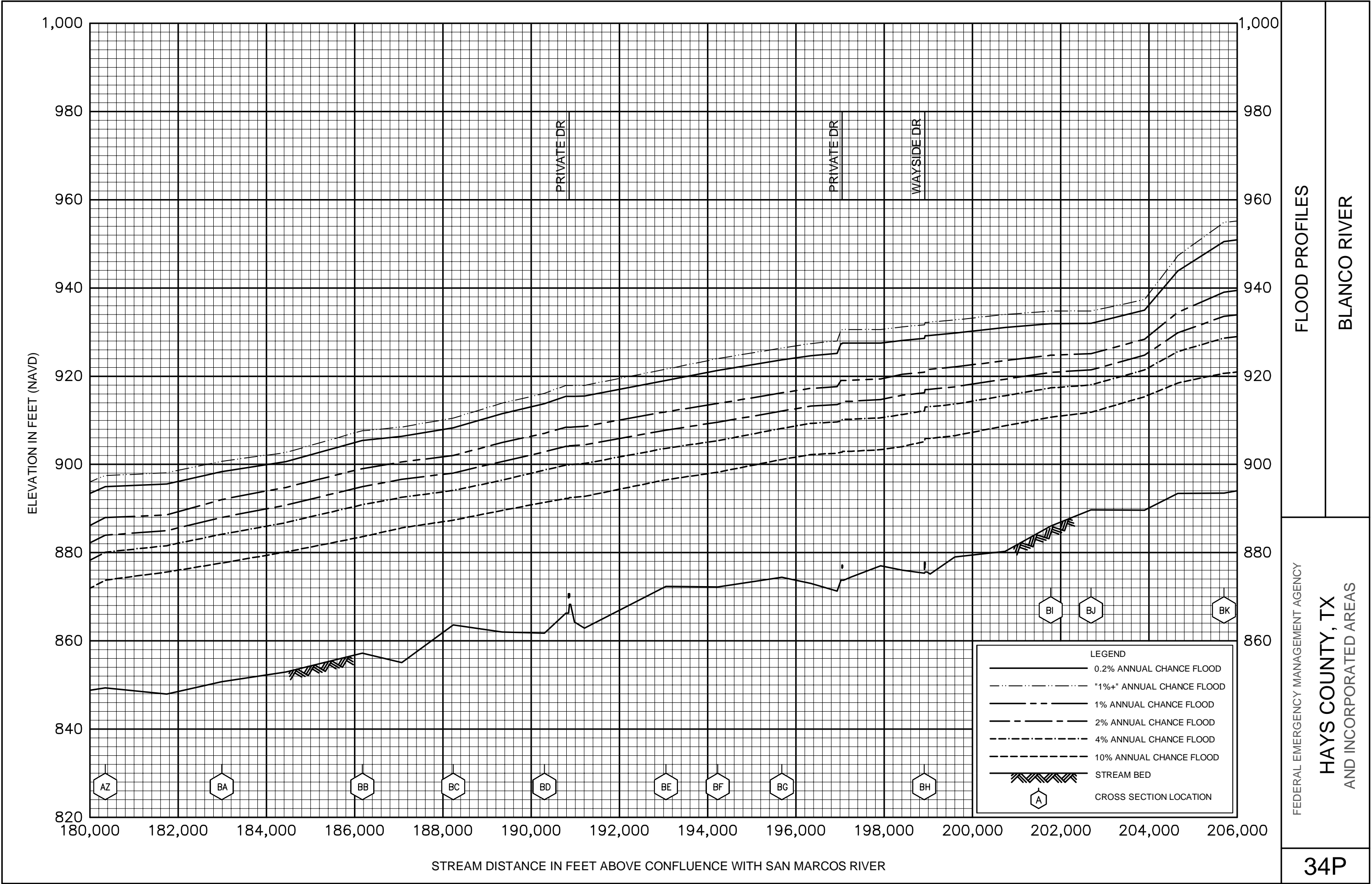












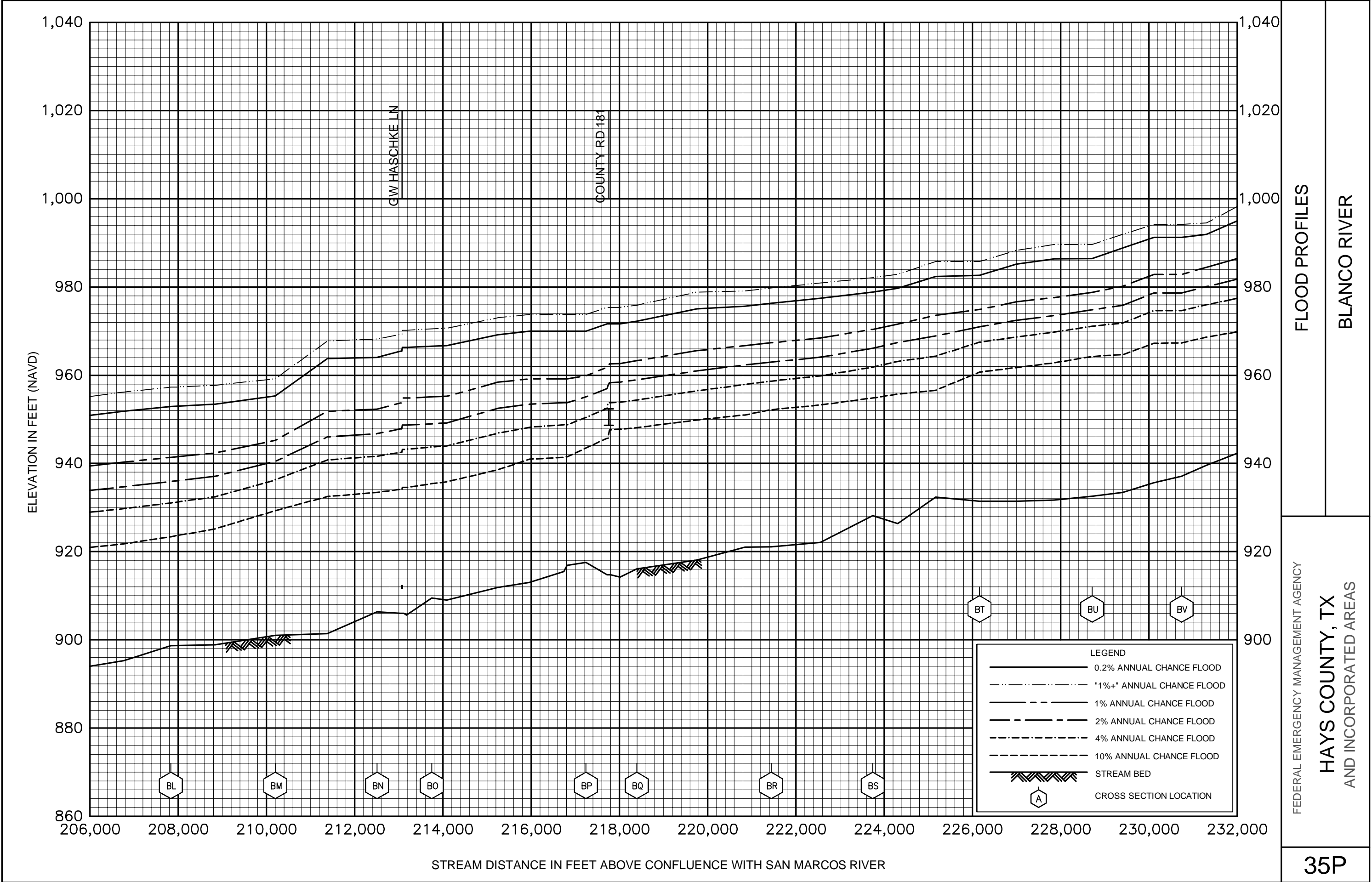
FLOOD PROFILES

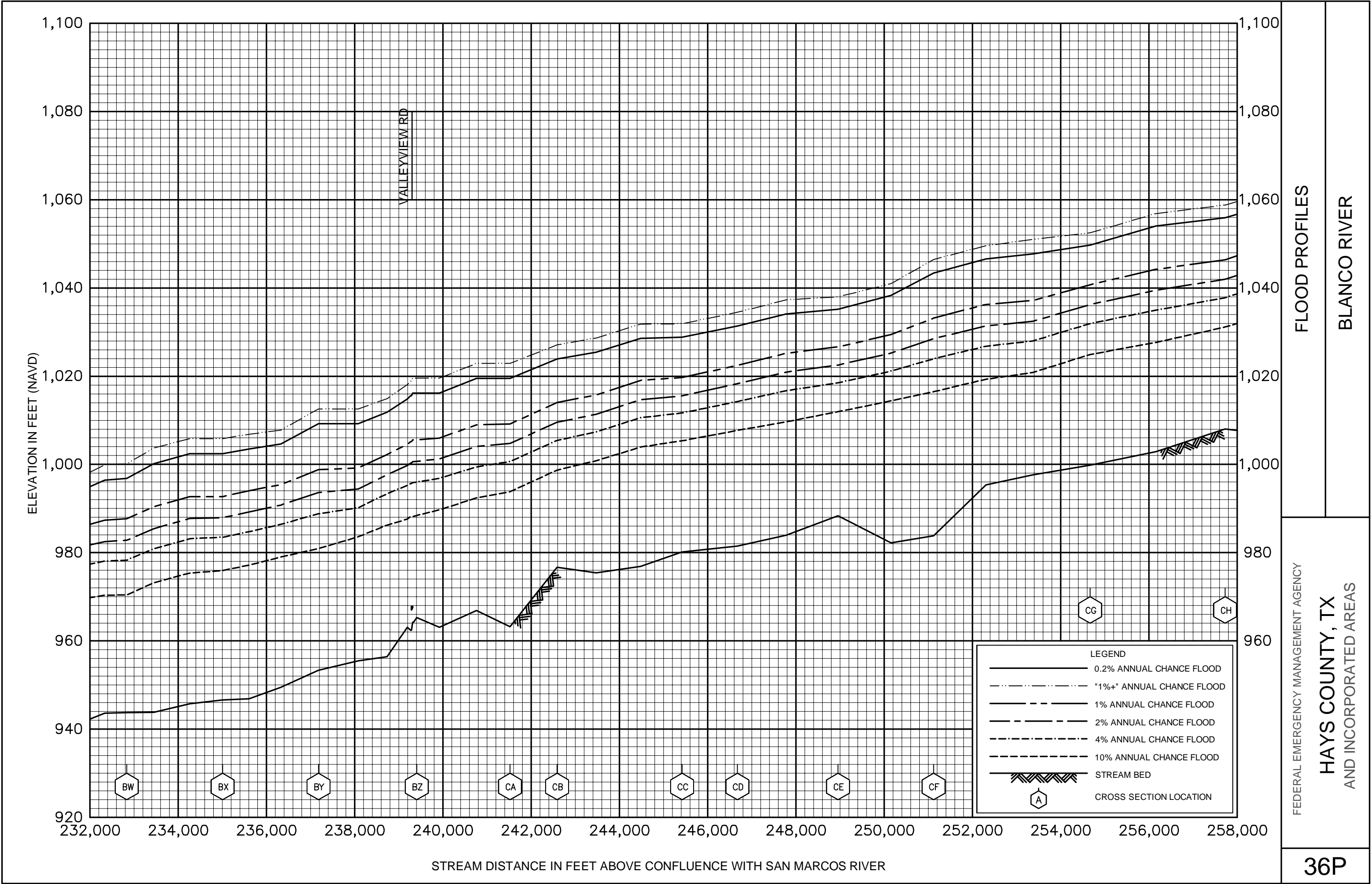
BLANCO RIVER

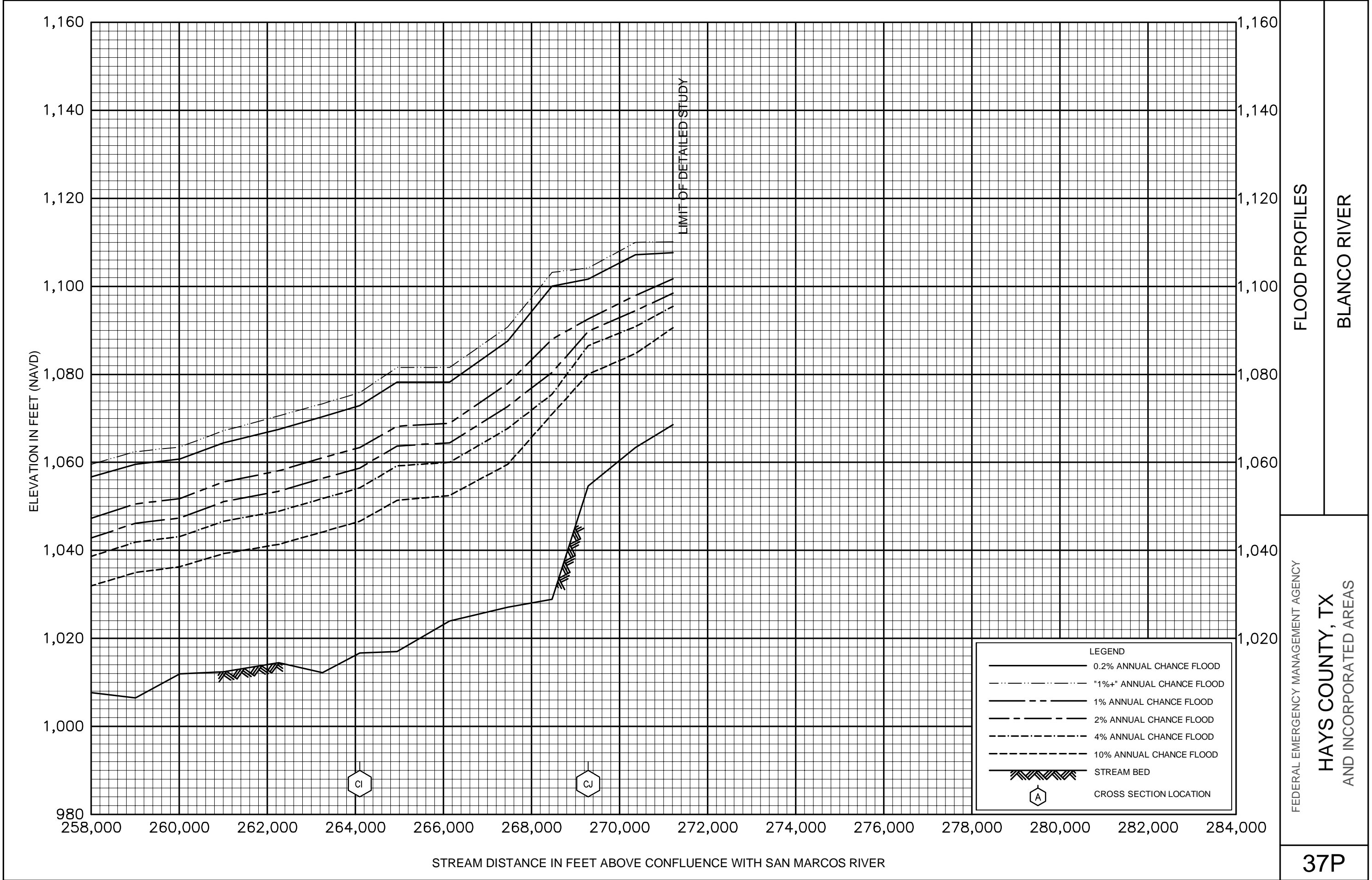
FEDERAL EMERGENCY MANAGEMENT AGENCY

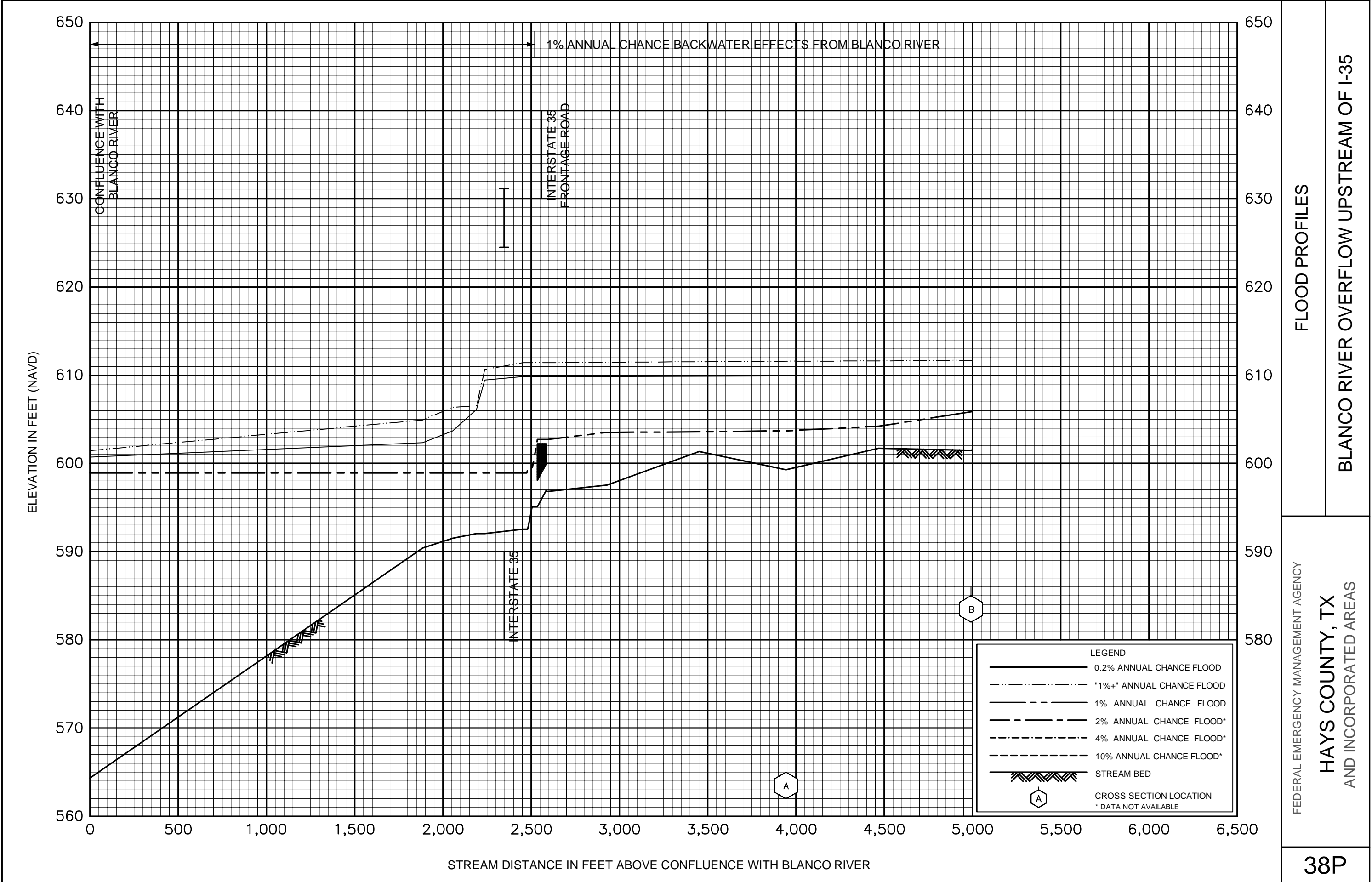
HAYS COUNTY, TX  
AND INCORPORATED AREAS

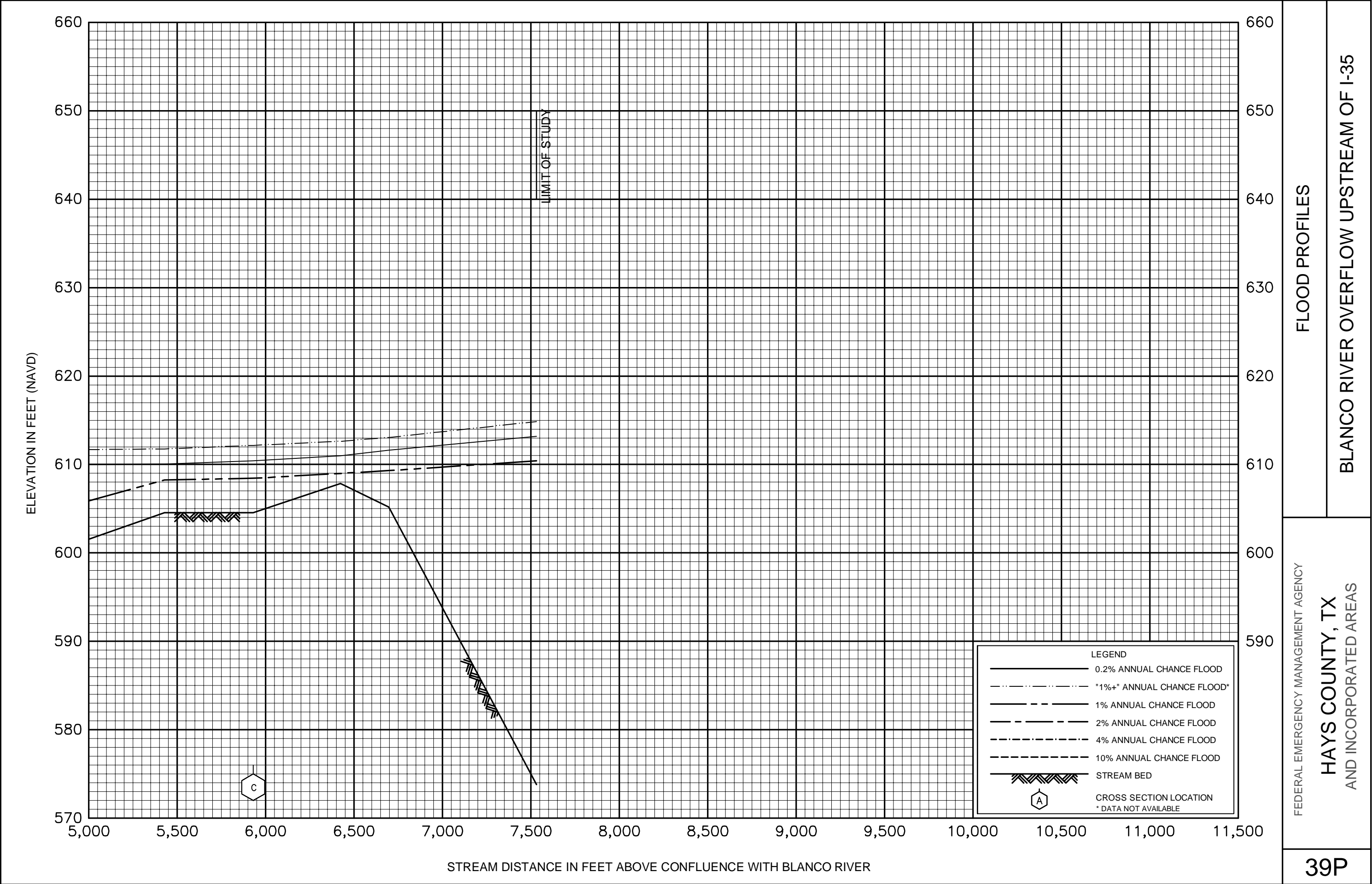
34P

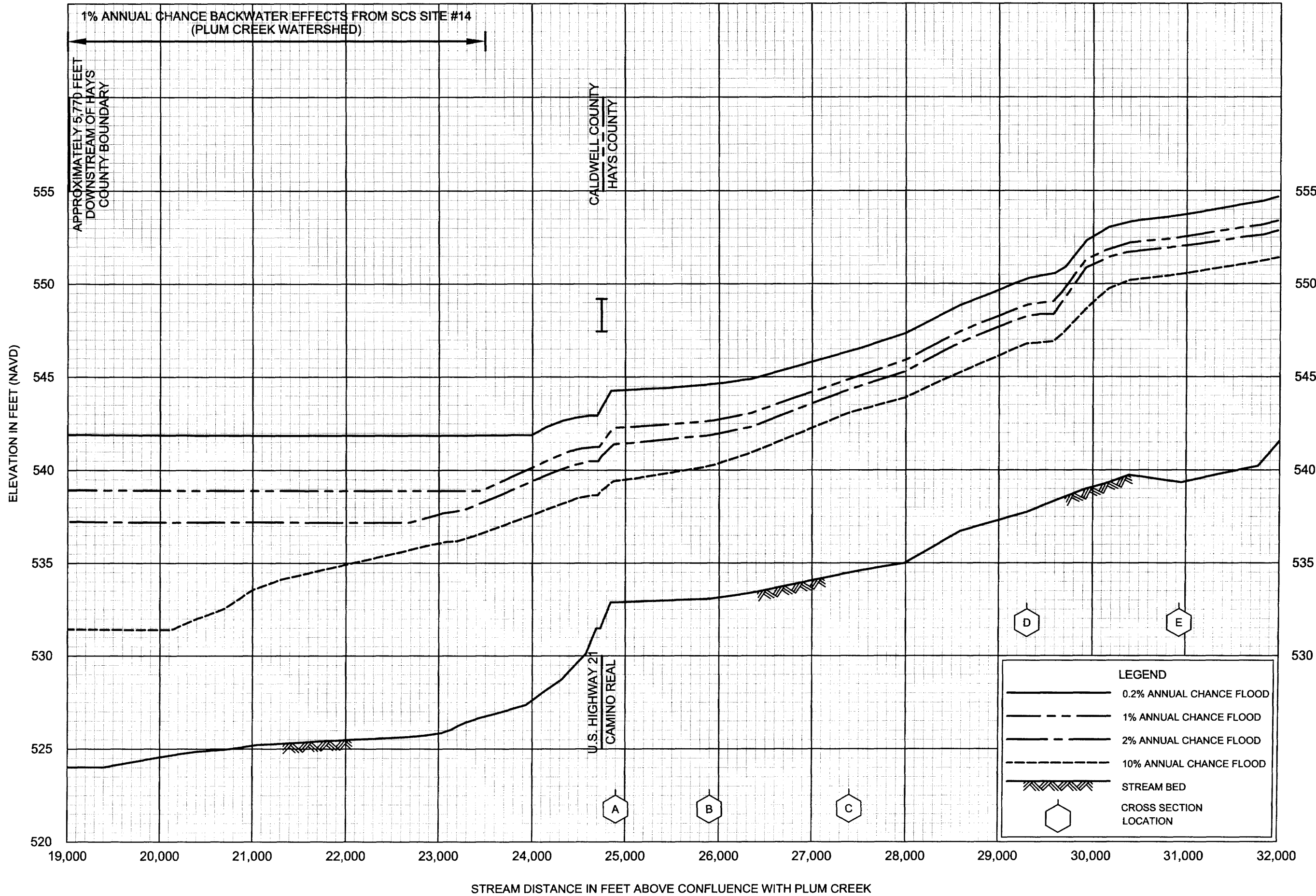










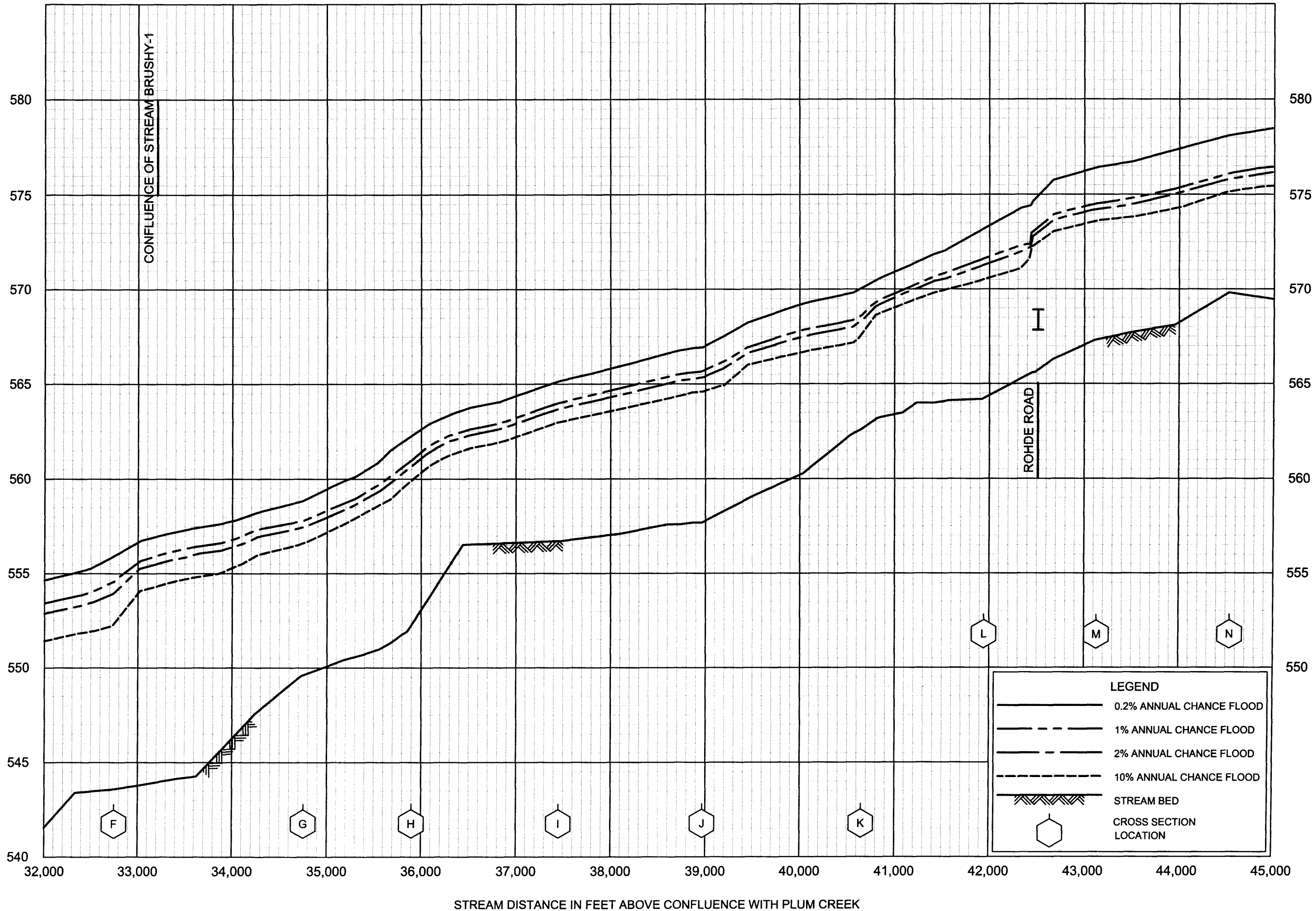


# FLOOD PROFILES

BRUSHY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY  
HAYS COUNTY, TX  
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)



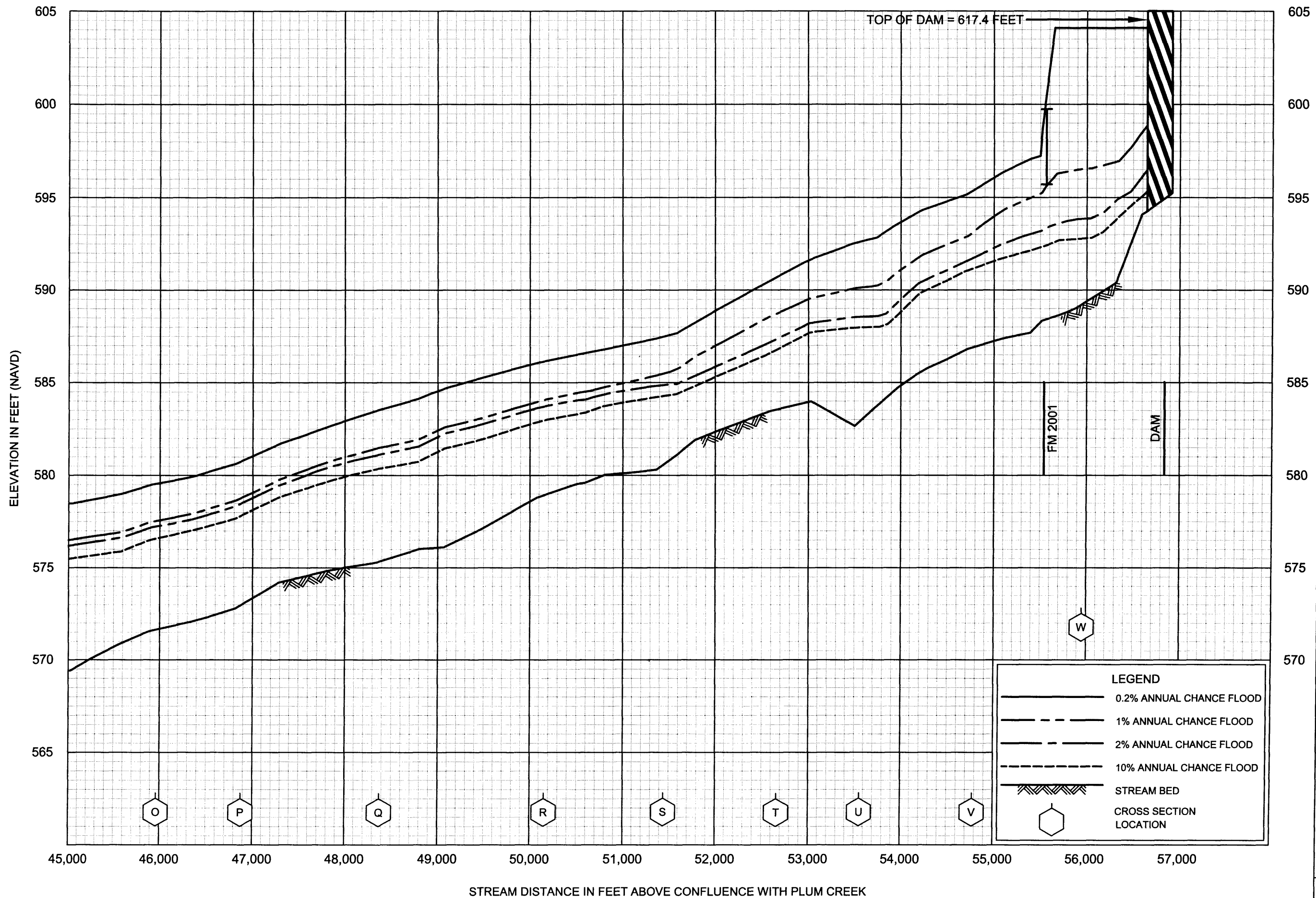
FLOOD PROFILES

BRUSHY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY  
HAYS COUNTY, TX  
AND INCORPORATED AREAS

41P

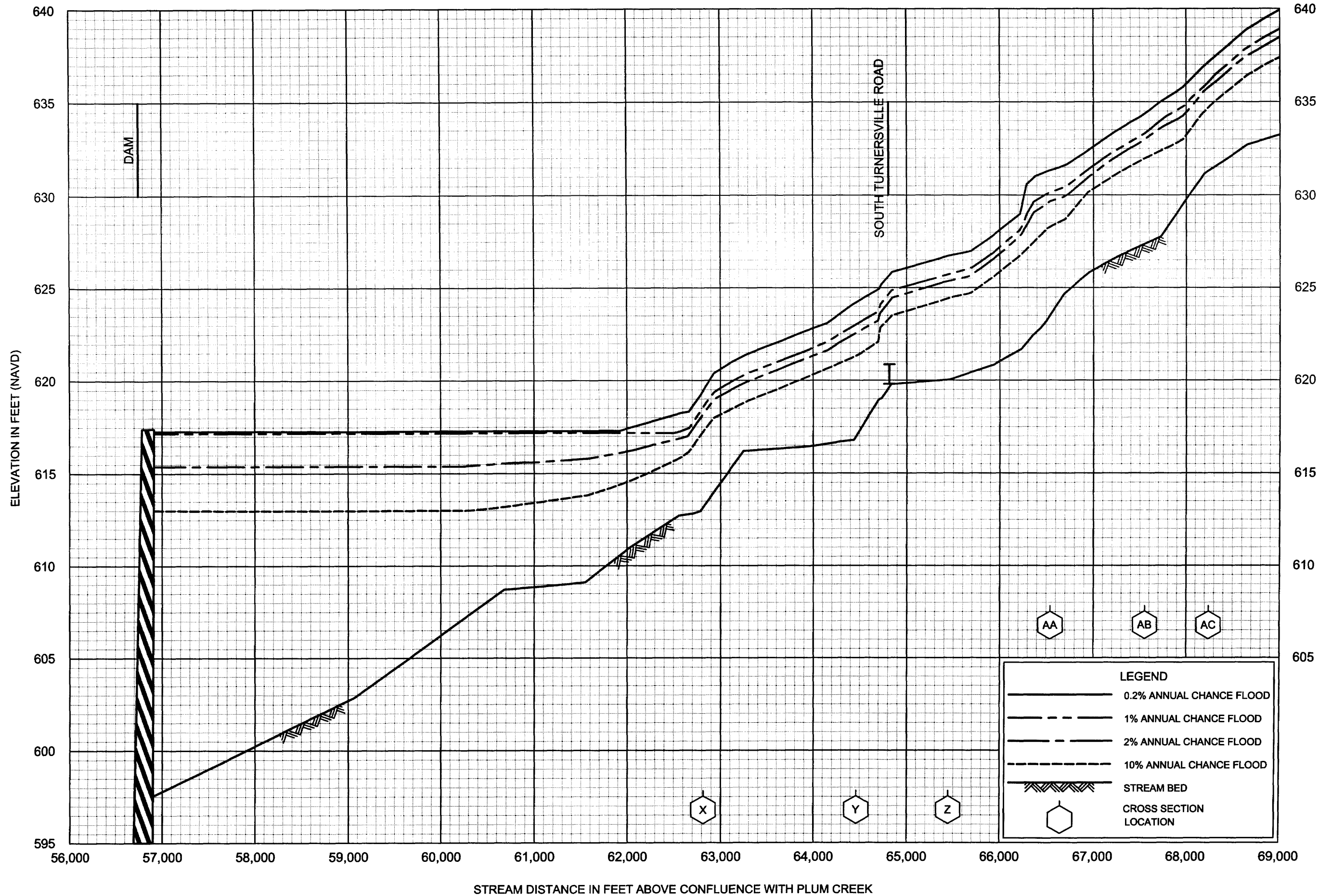




FLOOD PROFILES

BRUSHY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY  
HAYS COUNTY, TX  
AND INCORPORATED AREAS



FLOOD PROFILES

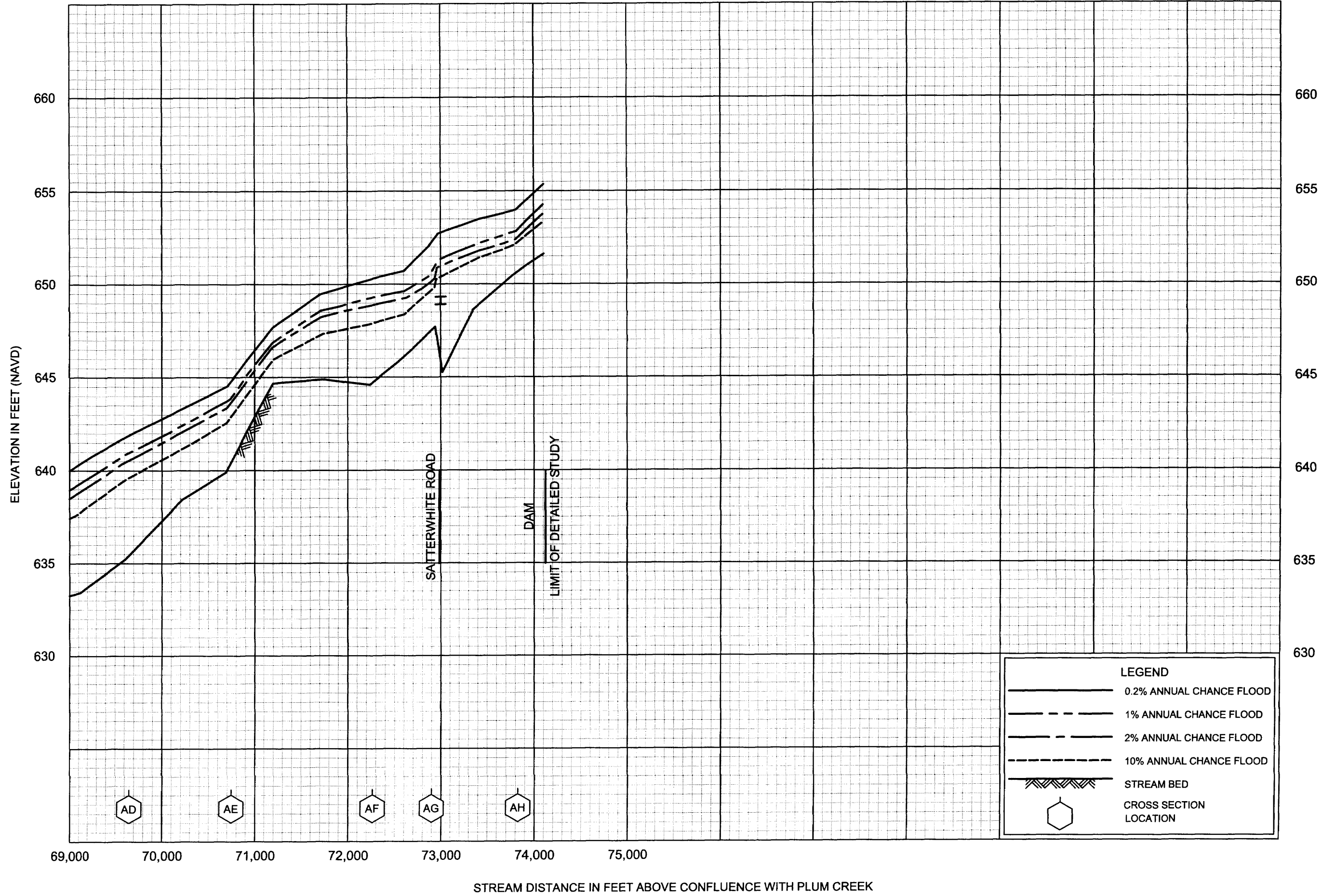
BRUSHY CREEK

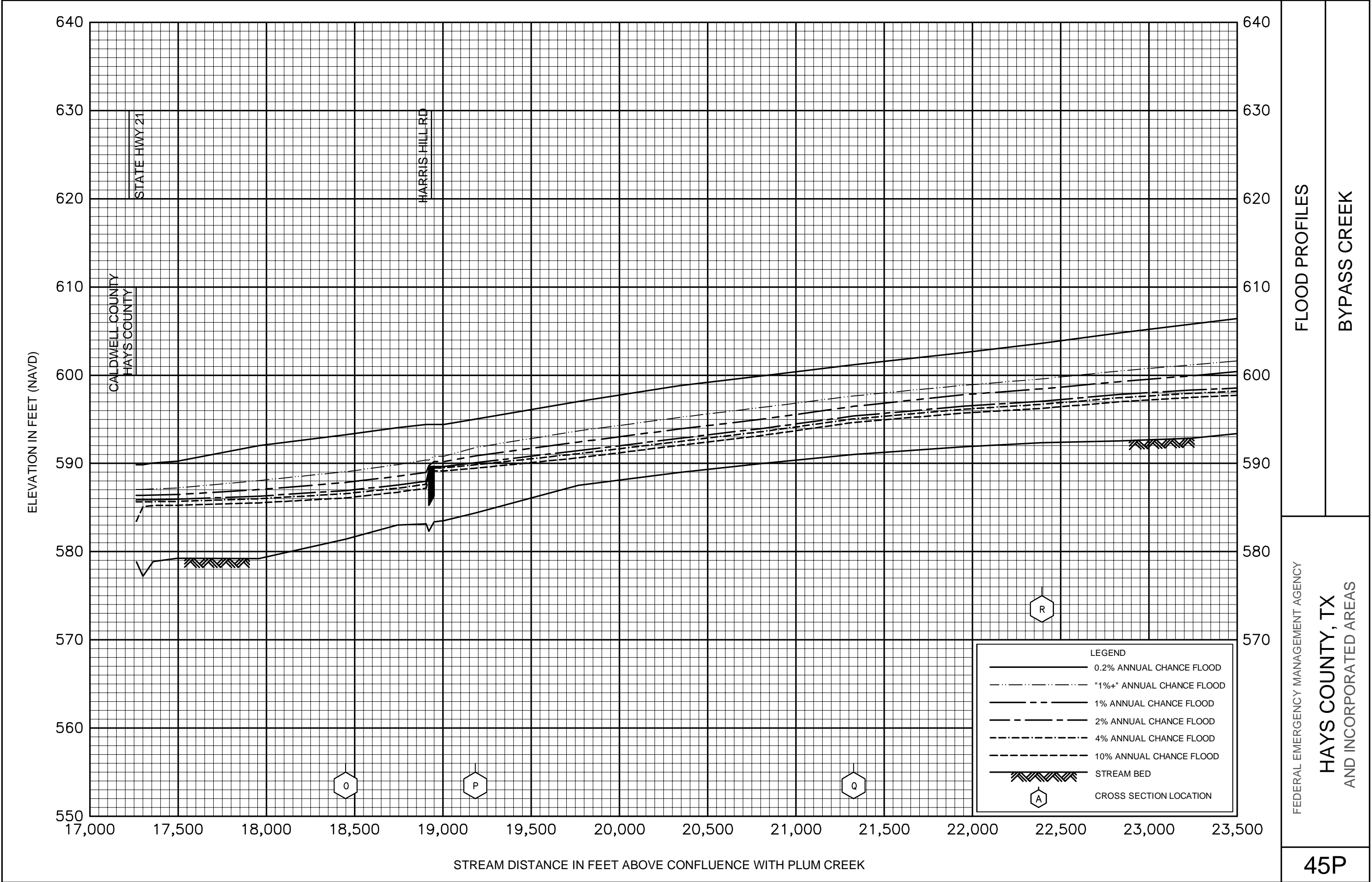
FEDERAL EMERGENCY MANAGEMENT AGENCY

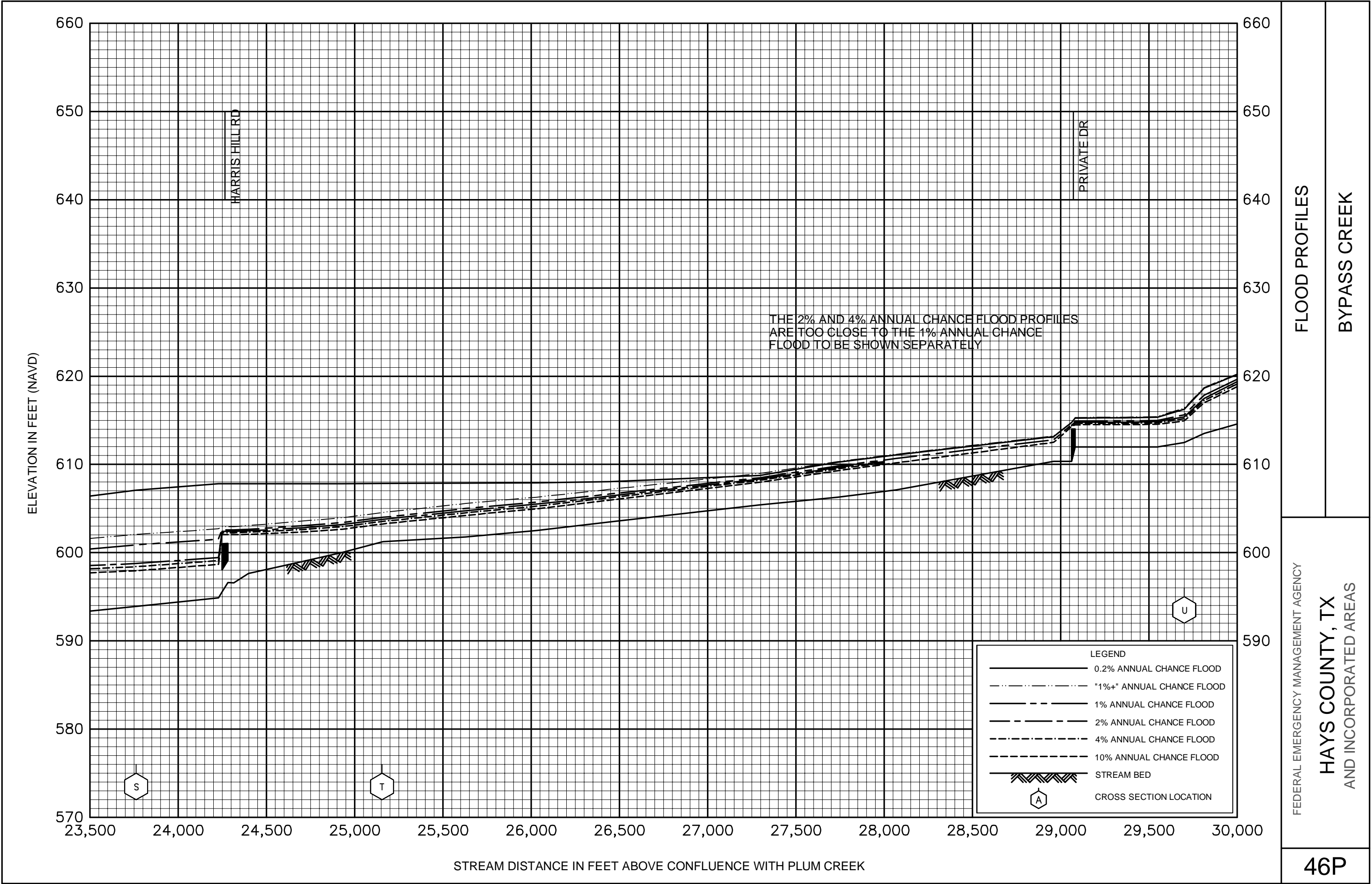
HAYS COUNTY, TX

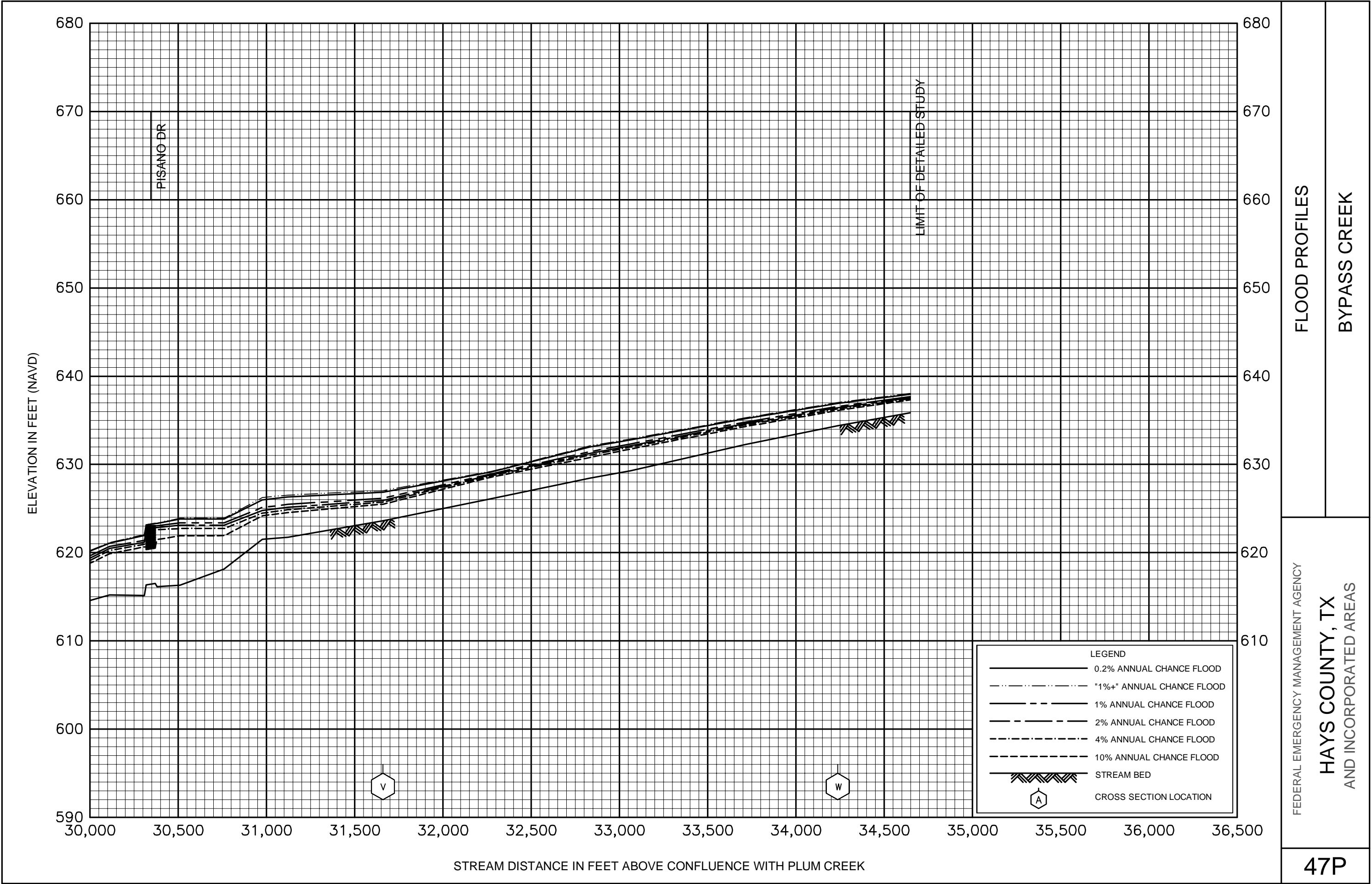
AND INCORPORATED AREAS

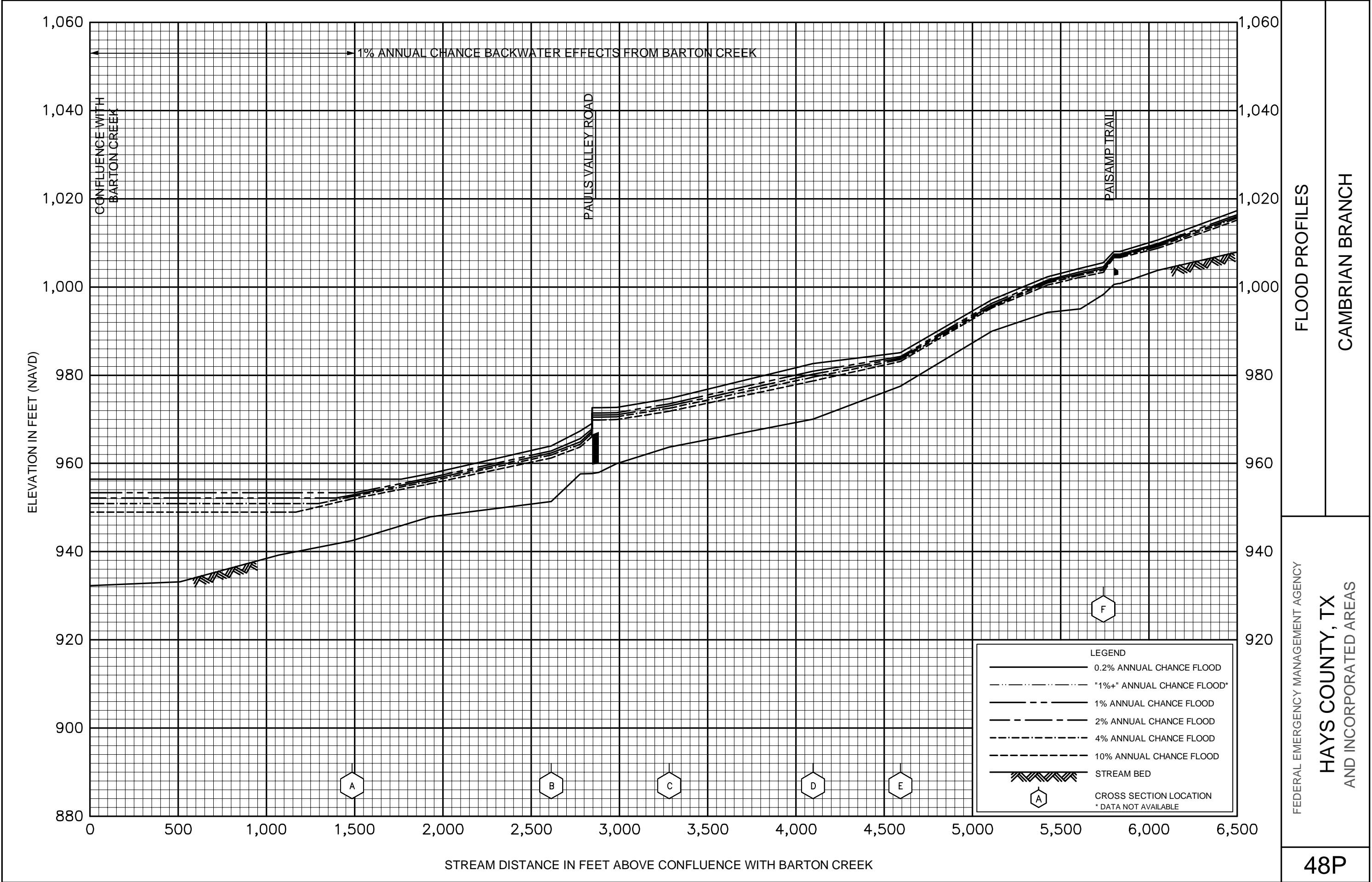
43P



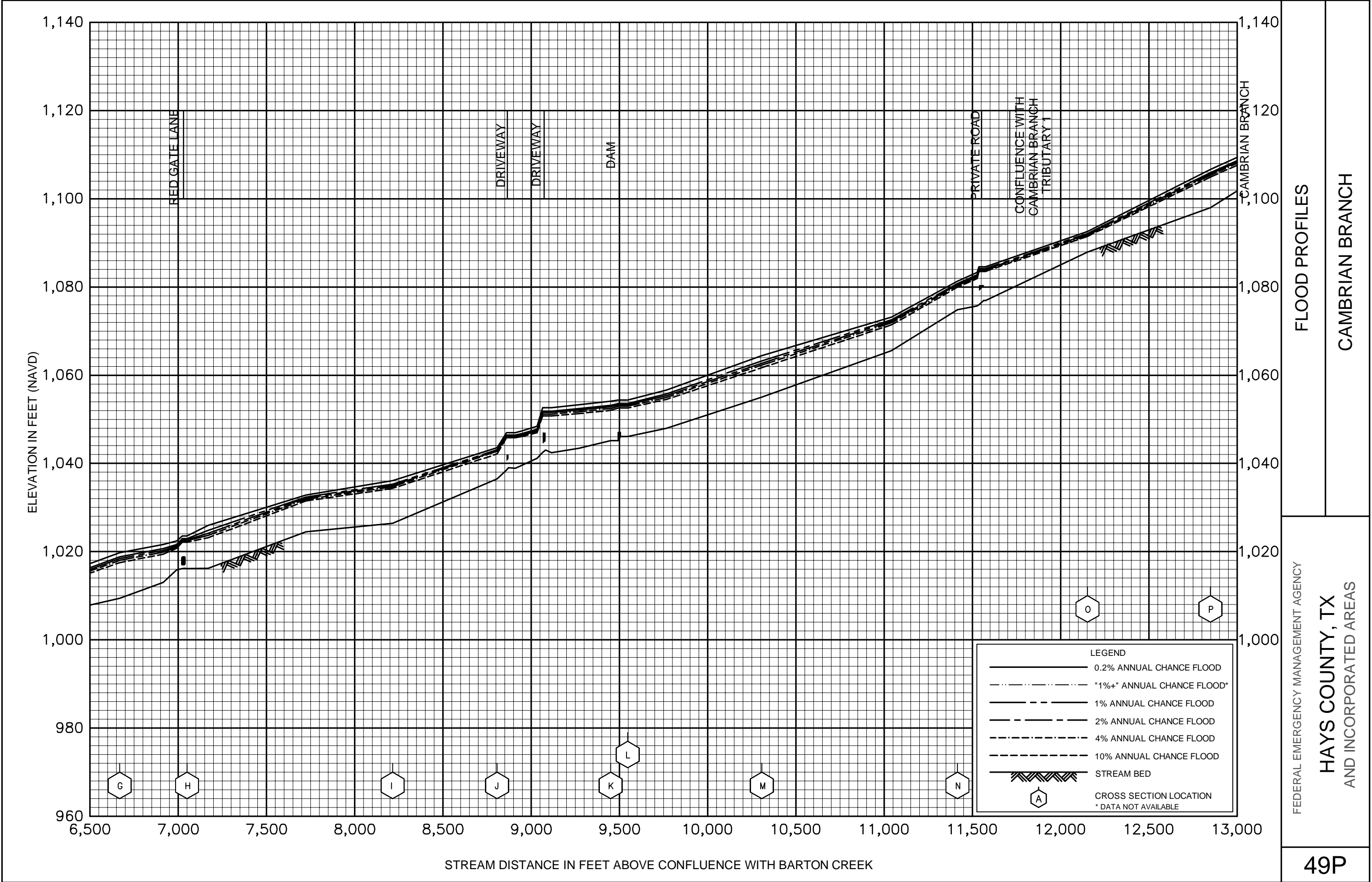




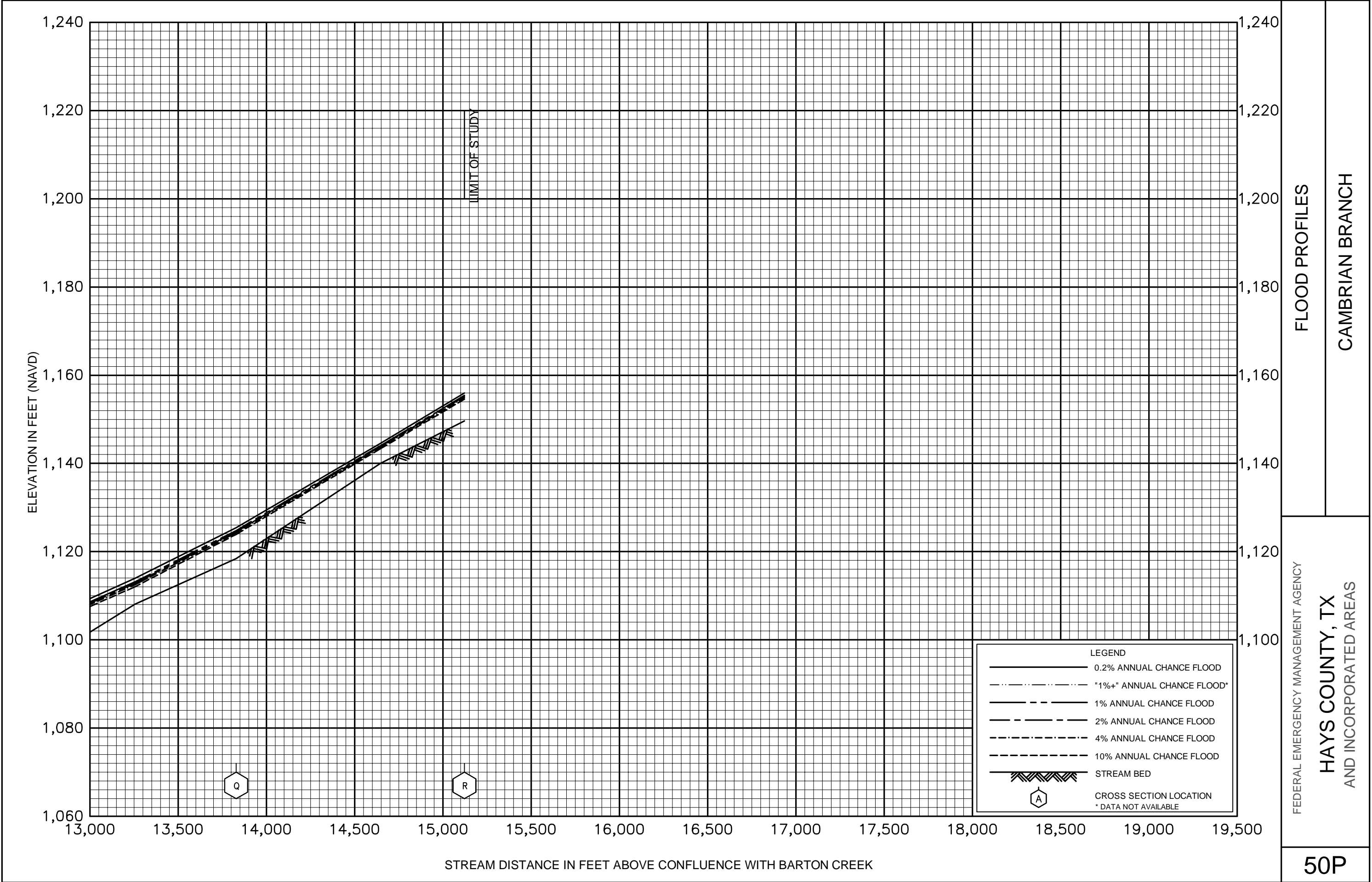


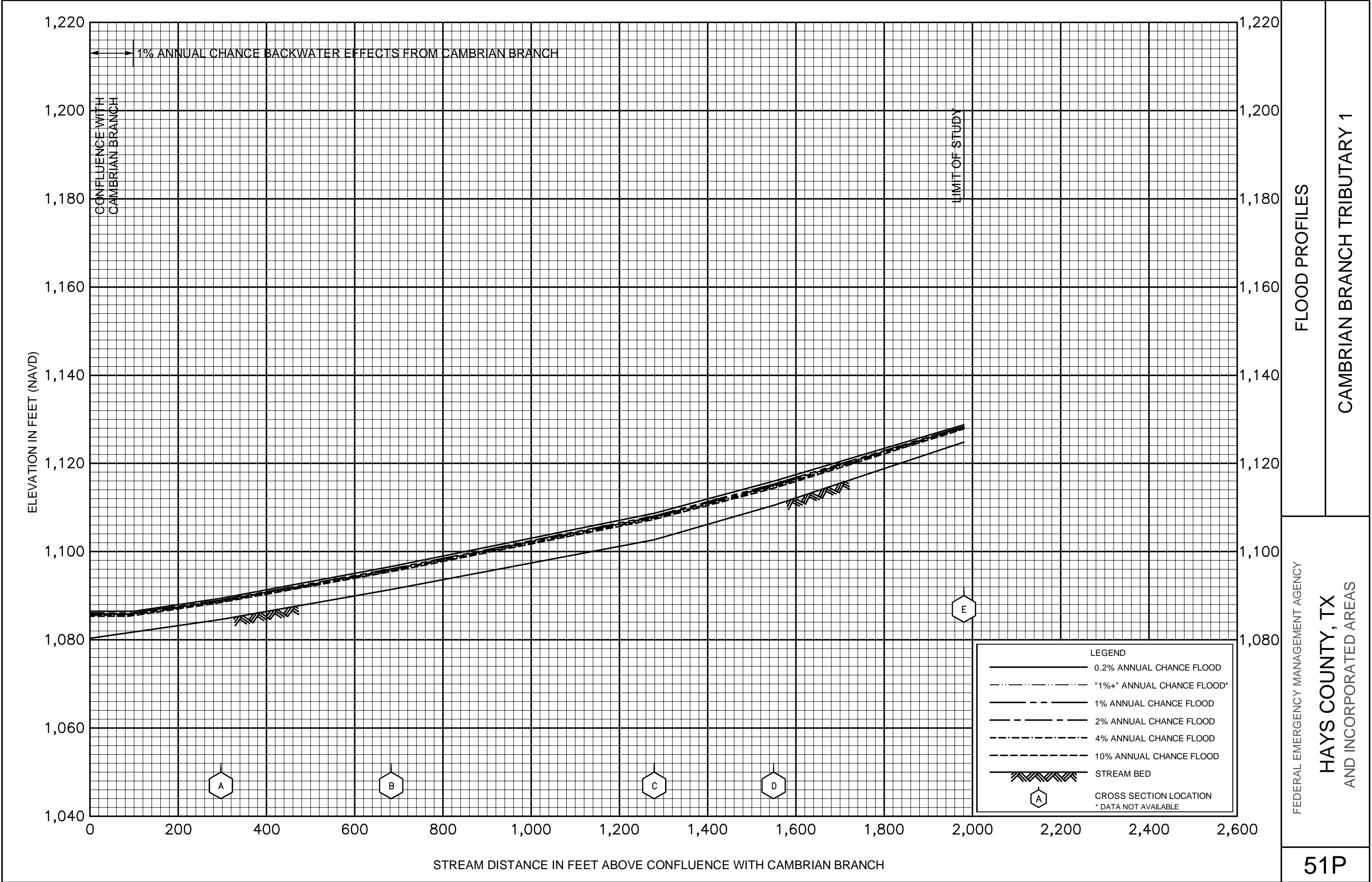


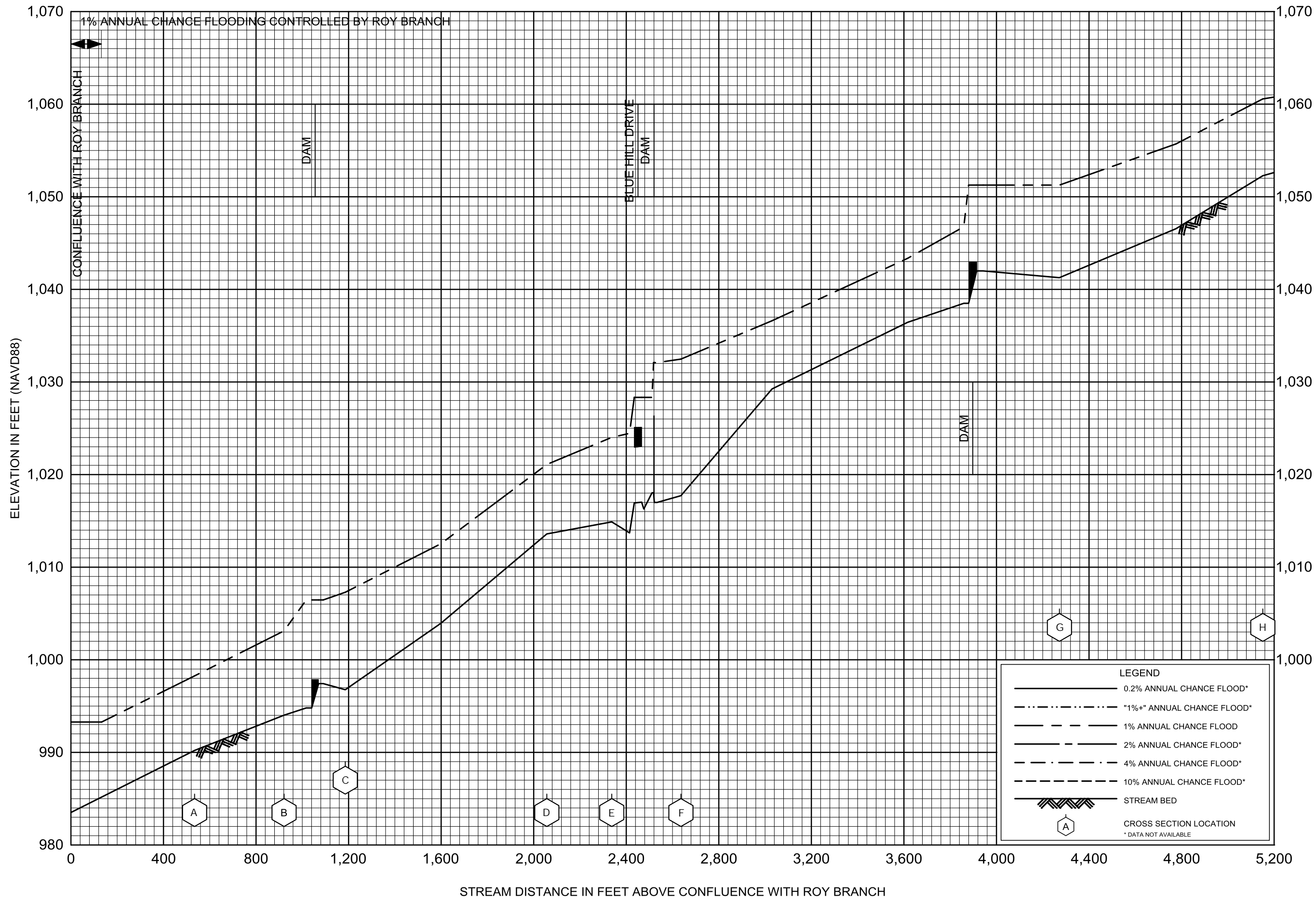












FLOOD PROFILES

COTTONWOOD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

HAYS COUNTY, TX  
AND INCORPORATED AREAS

52P

